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ABSTRACT

This self-study curriculum guide is intended to assist counselors and teachers in learning to use labor market and career information with clients more effectively. The following topics are covered: understanding career development and the use of career and labor market information in career counseling (changing ideas about career development, the role of theory, classification of theories as structural or developmental, and career development theories and career counseling); understanding the labor market (the basic model of the labor market and modifications of the concepts of supply and demand); exploring labor market information sources and systems (major state and federal sources, career information delivery systems, and nongovernmental sources); exploring labor market information resources and products (including discussions of 17 major resources); using labor market information in career counseling (occupational questions and resources and career counseling case studies); and developing a professional plan of action (professional, information, and community development). Appendixes include additional labor market information resources, guidelines for preparing and evaluating career information literature, designated vocational/career competency areas, introductions to the military services and the American labor movement, networking resources for establishing lines of communication, a glossary, and lists of acronyms and additional resources. (MN)

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Using Labor Market Information in Career Exploration and Decision Making

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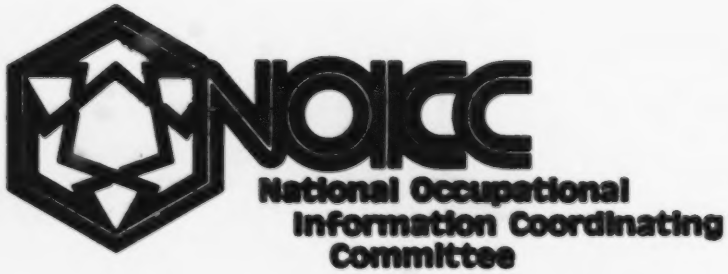

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NATIONAL OCCUPATIONAL INFORMATION COORDINATING COMMITTEE

The National Occupational Information Coordinating Committee (NOICC) and counterpart State Occupational Information Coordinating Committees (SOICC's) are interagency committees designed to encourage coordination in the development and use of occupational information. These committees have been charged with developing occupational information systems to serve the needs of vocational education and job training programs and to address the needs of youth and adults engaged in career exploration and job search. The statutory members of NOICC established by education and labor legislation are as follows:

Undersecretary for Small Community and Rural Development, U.S. Department of Agriculture; Assistant Secretary for Economic Development, U.S. Department of Commerce; Assistant Secretary for Employment and Training and Commissioner of Labor Statistics, U.S. Department of Labor; Assistant Secretary for Force Management and Personnel, U.S. Department of Defense; and from the U.S. Department of Education: Commissioner, Rehabilitation Services Administration; Assistant Secretary for Vocational and Adult Education; Director, Center for Statistics (formerly the National Center for Education Statistics); and Director, Office of Bilingual Education and Minority Language Affairs.

State Occupational Information Coordinating Committees consist of a representative from the:

State board administering vocational education
State economic development agency
State employment security agency
State job training coordinating council
State agency administering vocational rehabilitation services

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The Department of Defense's statutory representative to NOICC is the Assistant Secretary of Defense (ASD) for Force Management and Personnel (FM&P). Under the direction of the Secretary of Defense, the ASD (FM&P) is responsible for such functions as:

- Force structure analysis as related to quantitative and qualitative manpower requirements, manpower utilization, logistics and support.
- Manpower programs development, and control of military and civilian manpower strengths.
- Civilian and military personnel management programs and systems, including: attraction and retention of military personnel; personnel utilization; compensation, retired pay, per diem, travel and transportation allowances; civilian and military personnel career

development; training and education; labor-management relations; morale, discipline and welfare; and community services.

- Equal opportunity, including employment and utilization of personnel, education and race relations and human relations, and contractor compliance with equal opportunity requirements of Defense contracts.
- Transportation management and sealift and airlift readiness.
- Provision of DoD resources to other agencies for drug and narcotics enforcement efforts.
- Federal-State relations.
- Coordination of DoD effort for mobilization of conventional forces.

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PREFACE

Over the past 5 years, the Employment and Training Administration (ETA), U.S. Department of Labor (DOL); the U.S. Department of Defense (DOD); and the National Occupational Information Coordinating Committee (NOICC) have been involved in a major effort, the Improved Career Decision Making (ICDM) project. This project is designed to help counselors and teachers to use labor market and career information with clients more effectively. While the task is complex and not achievable in a single course, this curriculum allows counselors and teachers a guide for more extensive understanding of the issues through self-study.

The original ICDM effort focused on upgrading the knowledge of counselors already on the job or in service. While there will be a continuing need for such inservice training to keep counselors informed about new techniques and resources, it is clear that there is also a need for such instruction for prospective counselors in university and college counselor education programs.

Recognizing this need, in 1983, the Office of Accession Policy in DOD and the Employment and Training Administration in DOL collaborated with NOICC to implement a preservice project, drawing upon some of the curriculum developed in the earlier effort. This preservice project involved (1) the development of a curriculum on the use of labor market information in counseling; (2) a pilot test of the curriculum in six universities; (3) an evaluation of the curriculum and the pilot test; and (4) preparation of a directory that describes the nature and structure of university and college courses that typically cover the subject of labor market information. The resulting publication, *Using Labor Market Information in Career Exploration and Decision Making*, represents the results of steps one through three of the preservice project. Dr. Alan L. Moss and Armelia T. Hailey, ETA, made major contributions to the conceptualization of the preservice project.

Three principal contractors who were associated with the development of this curriculum are North Texas State University, the primary contractor; the National Center for Research in Vocational Education; and the University of Missouri-Columbia. Dr. Lewis M. Abernathy, NTSU, conducted the field testing, evaluation, and fiscal monitoring; Harry N. Drier and Dr. Robert Bhaerman of the National Center coordinated the development of the curriculum; and Dr. Norman C. Gysbers, University of Missouri-Columbia, served as the project administrator.

In addition, Harold Goldstein, economic consultant, Bethesda, Maryland, and Dr. Carl McDaniels, Virginia Polytechnic Institute and State University, authored sections of this publication. David Adams, Robert Hansen, and Mary Heppner wrote the case studies in chapter 5. Authors or principal authors of specific sections are as follows:

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Three distinctly different committees were established to assist in the development of this curriculum. These committees were the Federal Steering Committee, the Technical Resource Group, and the National Resource Group. Members of these groups are gratefully recognized for their participation in working sessions, their review of drafts, and many helpful comments and suggestions. These committees consisted of the following individuals:

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National Resource Group—Lorraine Amico, National Governor's Association; Jim Auerbach, AFL-CIO Department of Education; John Banks, National Rehabilitation Association; Michael Bell, Washington Urban League; Dr. Ralph Bregman, National Advisory Council on Vocational Education; Dr. Frank Burtnett, American Association for Counseling and Development; Dr. Kitty Cole, Catholic Education Office, Archdiocese of Washington; Katheryn Cranford, U.S. Marine Corps; Dr. Don W. Dew, George Washington University; Ruth Duncan, Interstate Conference of Employment Security Agencies; Oscar Gjernes, National Employment Counseling Association; Madeleine Hemmings, National Alliance of Business; Dr. Donald Linkowski, George Washington University; Dr. Thomas Long, Catholic University; Christopher Lyons, Delaware Occupational Information Coordinating Committee; Marlene Pinten, American School Counselors Association; Dr. Wendell Russell, District of Columbia Occupational Information Coordinating Committee; Dr. W.S. Sellman, U.S. Department of Defense; Marilyn Silver, National Alliance of Business; Dr. E. Robert Stephens, University of Maryland; Hal A. Timmons, U.S. Department of Labor; and Walter Turner, American Association of School Administrators.

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Harold Goldstein, consulting economist, formerly served as assistant commissioner of the Bureau of Labor Statistics, U.S. Department of Labor, where he directed the employment and unemployment statistics, manpower, and occupational outlook studies. He is the author of *Training and Education by Industry*, published by the National Institute for Work and Learning, and of numerous articles and reports on manpower and economic projection methods and statistics. He has co-authored *Our World of Work* with Seymour L. Wolfbein; *Employee Training: Its Changing Role* with Anthony P. Carnevale; and *Manpower for the Nation's Energy Programs* with R.W. Cain, T.J. Mills, and H. Travis. In 1963, Goldstein received the U.S. Department of Labor's Distinguished Service Award. He was president of the Washington Statistical Society from 1965-1966.

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INTRODUCTION

Background

Counselors and teachers play a very important role in helping both youth and adults gather, analyze, and use occupational and labor market information (LMI) in order to make informed career decisions. To fulfill this role, counselors and teachers need to learn about labor market concepts and principles, supply and demand information, and educational information in both the civilian and military sectors. They also need to learn how to use existing Federal and state LMI materials.

The Improved Career Decision Making (ICDM) inservice project was initiated in 1980 to help solve this problem by focusing on upgrading the knowledge of counselors on the job. Since that time, counselors from public schools and community colleges, employment and training, vocational rehabilitation, and job service settings in 51 states and territories have received training in the use of LMI. The need for high-quality inservice training to keep practitioners up-to-date about new resources and techniques is a continuing one.

Equally important is the need for similar, high-quality preservice training. During preservice education, both counselors-in-training and teachers-in-training acquire basic values, attitudes, and skills for their future work. In recognition of this need, the preservice ICDM project was undertaken and this curriculum was developed.

Both the ICDM inservice and preservice projects respond to several of the National Occupational Information Coordinating Committee (NOICC) legislative mandates, including the Job Training Partnership Act signed into law on October 13, 1982. Under this act, NOICC is responsible for providing special attention to the labor market information needs of youth and adults, including activities fostering cooperation with educational agencies and encouraging programs that provide career information, counseling, and employment service for postsecondary youth. In addition, the Carl D. Perkins Vocational Education Act signed into law on October 19, 1984 also calls for NOICC to develop and implement, in cooperation with state and local agencies, an occupational information system to meet the common occupational information needs of vocational education programs and employment and training programs at the national, state, and local levels. The ICDM projects clearly have been responsive to these mandates.

Organization

This curriculum is presented in a logical, step-by-step fashion with each chapter building on the previous one. Basic background information and theories on the broad concepts of career development and labor markets are presented. This is followed by an overview of the LMI sources and various classification and crosswalk systems, and then an exploration of the actual LMI resources. Finally, practical ways of using LMI in counseling situations and concrete ways of developing a professional plan of action prior to becoming a counselor are discussed. In short, the curriculum follows three paths: theoretical foundations (chapters 1 and 2), LMI sources and resources (chapters 3 and 4), and counseling applications (chapters 5 and 6).

Chapter 1, "Understanding Career Development and the Use of Career and Labor Market Information in Career Counseling," focuses on why an understanding of career development is

needed, the major career development and structural theories, and the changing ideas about careers and career development. It also addresses applications of these theories through a discussion of how these theories help to improve career counseling and the use of LMI in career counseling.

Chapter 2, "Understanding the Labor Market: Concepts and Applications," is similar to the previous chapter in that it concentrates on the foundations, in this case, of labor markets and economic theory. Several key labor market concepts—the basic model of the labor market and the supply and demand concepts—are discussed. Modifications of the supply concept are presented, and applications are presented with regard to how and where labor market concepts and economic theories relate to career counseling.

Chapter 3, "Exploring Labor Market Information Sources and Systems," presents background information about where labor market information comes from (the sources), how the information is categorized (classification), and how the various classifications can be related (crosswalk). The major sources are Federal and state programs, although several nongovernmental sources are included. Career information delivery systems (CIDS) also are discussed. Regarding classification, a number of important systems are reviewed, particularly those organized by occupation, industry, and instructional program. Finally, the concept of crosswalk is briefly introduced.

Chapter 4, "Exploring Labor Market Information Resources and Products," examines in more detail the specific classification and crosswalk resources, as well as the major LMI resources. Each resource is reviewed according to the scope of coverage, type of information presented, description of the contents, and how counselors can acquire and use the resource.

Chapter 5, "Using Labor Market Information in Career Counseling," consists of two parts. Part one presents typical client questions and indicates how to answer these questions, using the resources described in the previous chapters. The second part presents sample case studies that are based upon actual counseling situations and that represent a variety of populations and settings.

Chapter 6, "Developing a Professional Plan of Action," provides counselors-in-training with suggestions on how to develop a professional growth plan. The counselor's professional development, information development, and community development are covered. The purpose of this chapter is not to make counselors-in-training local labor market analysts but to help them understand their communities from an LMI perspective and to develop needed communications networks.

There are nine appendixes. Appendix A provides "Additional Labor Market Information Resources." Appendix B, "Guidelines for the Preparation and Evaluation of Career Information Literature," consists of standards developed by the National Vocational Guidance Association (NVGA). Appendix C, "Designated Vocational/Career Competency Areas," was also prepared by the NVGA. Appendix D is "A Brief Introduction to the Military Services." Appendix E is "A Brief Introduction to the American Labor Movement." Appendix F, "Networking Resources for Establishing Lines of Communication," provides names and addresses of various LMI agencies and offices. Appendix G is a glossary of important career development and labor market terms. Appendix H is a list of acronyms, titles of organizations, and agencies. A list of additional resources also has been included in Appendix I.

Using This Curriculum

The material in this curriculum can be used in numerous ways. It can stand alone as a single text in a course on counseling, career planning, or career and occupational information, or it can be used as a supplementary resource to related publications. A number of excellent textbooks are available; however, none covers all the potential LMI and career decision-making topics counselors and teachers-in-training need to know. Therefore, selection and use of supplementary materials is recommended in order to provide an adequate foundation for a beginning counselor.

Further, this curriculum can be used at both the undergraduate and graduate level, in seminars and workshops, as well as in standard courses. Also, the curriculum is intended for all counselors and teachers, whether they are in the elementary or secondary schools, vocational rehabilitation settings, postsecondary institutions, employment training settings, employment service, or the military.

Finally, this curriculum can be used as a reference tool, along with such resources as the *Dictionary of Occupational Titles* and the *Occupational Outlook Handbook*. In fact, both counselors-in-training and teachers-in-training will want to become familiar with all the suggested resources. Check with college or university librarians to make certain that the necessary LMI resources are available, at least on a reserve basis. Lastly, do not forget to contact state agencies for state, substate, and local materials.

LMI Guideposts

Before you turn to the chapters, the following "LMI guideposts" should be considered:

- Guidepost #1. Do not assume that numbers always represent reality. Data are estimates of *best bets*. As such, they can be used well when viewed in the context of how, when, and for what sample they were collected.
- Guidepost #2. Attempt to identify data that best match the geographic area relevant to your needs. Infusing "geographic relevance" into clients' questions serves as a check that the data sources match or closely resemble the location of interest.
- Guidepost #3. Consider the timeliness of the data. Old publications showing projections based on data 10 years old will not be useful.
- Guidepost #4. Keep abreast of economic matters. Because there is generally a time lapse from the collection of data to the publication of many statistical reports, supplement your knowledge with the most current happenings concerning economic matters. Two specific suggestions are as follows:
  - —Review newspapers to learn of new legislation that may create new jobs or affect the economy. Check the financial section to learn of any expansion or decline in the local economy.
  - —Read magazines such as the U.S. Department of Labor's *Monthly Labor Review* for insights into various aspects of the national economy.
- Guidepost #5. Confirm your assumptions. For many occupations, one does not need to conduct an extensive analysis to determine outlook. As long as the population does not decrease drastically, there always will be a need for people to work in such industries as transportation and retail trade and in such occupations as managers and sales people. Nevertheless, it would be wise to confirm your assumptions with at least one external source.

Remember, too, that information and data sources often are limited. Some resources will not include the information you wish to have. Some will use varying terminology and differing conceptualizations. Be careful not to overgeneralize from limited data. Keep in mind that the generalizations drawn from LMI often may be more appropriate to groups as a whole than to specific individuals.

CHAPTER I

UNDERSTANDING CAREER DEVELOPMENT AND THE USE OF CAREER AND LABOR MARKET INFORMATION IN CAREER COUNSELING

CHAPTER GOALS

1. Gain an understanding of career development theory and why it is important.
2. Gain an understanding of how career development evolves over the life span of each individual.
3. Gain an understanding of how to use labor market information to assist individuals in their career development.
4. Gain an understanding of how to use labor market information in career counseling.

HIGHLIGHTS

- Career Development Theories
  - Structural Theories
  - Developmental Theories
- Career Development Theories and Career Counseling
- Labor Market Information and Career Counseling

Introduction

Whether your current or intended work setting is a public or private agency, an elementary or secondary school, a hospital, private practice, community college, 4-year college, university, or business and industry, you will be working with people who need and want assistance in their career development. In some settings, this may mean helping individuals find jobs immediately, or it may mean providing assistance in career exploration and decision making. In other settings, the focus may be on helping individuals move along a career ladder or path, or be more effective in integrating work roles with learner and family roles. Finally, it may mean working with displaced workers who need short-term job placement help and long-term career exploration and decision-making assistance.

The career counseling you may do in these situations will vary according to the needs of the individuals involved. Individual goals differ, as do the uses of career counseling techniques and career and labor market information (Hoppock, 1967). You will find that career and labor market information are useful in career counseling to the extent that such information can assist individuals in resolving their problems and reaching their goals. Some individuals are capable of solving their own problems once they have the necessary information. Hence, career counseling may consist of providing information or of telling individuals where to find information. On the other hand, some individuals may need help in self-understanding, career decision making, obtaining and assessing information, dealing with stress and anxiety, and making career transitions. In these situations, career counseling is more than providing information and answering questions. It involves relationship development and problem or goal identification, clarification, specification, and resolution. Career and labor market information may be one of the resources used to achieve client problem or goal clarification, specification, and resolution. When information is used in this way, it becomes a counseling intervention within the career counseling process.

To provide career counseling to people who need and want help with their career development, you will need to acquire career counseling competencies in such areas as general counseling theories and practices, career development theories and practices, career and labor market information, assessment, and program development, management, and consultation. It is beyond the scope of this chapter to provide you with the background and knowledge to acquire competencies in all of these areas. Instead, this chapter focuses on the knowledge related to those competencies that deal with the use of career and labor market information in career counseling. Because knowledge about career behavior and development is a prerequisite to the effective use of such information, chapter 1 provides you with an overview of theories that explain career behavior and development. Chapter 1 begins with a description of the evolving nature of our understanding of career and career development followed by a brief discussion of the role of theory and a description of the theory classification system being used. Then career development theories are described, and implications for their use are identified. This is followed by a discussion of the application of such knowledge and the use of career and labor market information in career counseling.

Changing Ideas About Career Development

Prior to the 1950s, theorists and practitioners focused their attention on the occupational aspects of the transition from school to work. In fact, the first modern formulation of vocational

guidance by Parsons (1909) was based on certain assumptions about occupational choice. Unfortunately, as Borow (1973) pointed out:

> Parsons' primal version of vocational counseling, or at least the interpretation placed upon it by his followers, was lacking in several respects. It overplayed the importance of self-analysis as a means to helping the individual know his vocational potentialities, oversimplified the dissemination of occupational information as a way of shaping vocational decisions, subordinated the influence of personal values in choice making, and lent at least tacit support to the single-job-for-life hypothesis. (p. 4)

During the 1950s, theorists began to emphasize a developmental view of occupational choice. It was during this period that the term *vocational development* became a popular way of describing the broadened view of occupational choice and the many factors that influenced it. During the 1960s, knowledge about this aspect of human development increased dramatically. Increasingly, the terms *career and career development* became popular, so that today many theorists and practitioners prefer them to vocation and vocational development.

In the 1970s, many writers and researchers defined career development as one aspect of human development. More specifically, it was often described as the interaction of psychological, sociological, economic, physical, and chance factors that shaped the career or sequence of occupations, jobs, and positions that individuals held during their lives (National Vocational Guidance Association, 1973). This expanded view of the career concept was more appropriate than the traditional view of career as occupation. It was more appropriate because it broke the time barrier that previously restricted the vision of career to only a cross-sectional view of an individual's life. As Super and Bohn (1970) pointed out, "It is well . . . to keep clear the distinction between occupation (what one does) and career (the course pursued over a period of time)" (p. 114). Also, it was more appropriate because the career concept became the basis for organizing and interpreting the impact that the role of work has on individuals over their lifetimes. Past, present, and possible future occupational and related behaviors could be understood in the context of an individual's overall development. Thus, emphasis was placed on "vocational histories rather than on status at a single point in time, on career criteria rather than occupational criteria" (Jordaan, 1974, p. 264).

Although a number of current career development theories are broader based than the more traditional ones, most still separate people's work roles, settings, and events from the other roles, settings, and events in their lives. Because of the increasing complexity and interrelatedness of all aspects of society, a number of contemporary writers have questioned whether or not it is desirable or even possible, when talking about career development, to separate clearly one role from another, one setting from another, one event from another. Thus, it has been proposed by some writers that career development should encompass the concept of life roles, settings, and events (Gysbers & Moore 1975, 1981). Jones, Hamilton, Ganschow, Helliwell, and Wolff (1972) stated that the concept of career includes a variety of personal choices—occupation, education, personal and social behavior, learning how to learn, social responsibility (i.e., citizenship), and leisure time activities—related to an individual's total life-style. Super (1975, 1984) also proposed a broad definition of career as involving the interaction of various life roles over the life span. He depicted his conception in a graphic called the life-career rainbow.

Wolfe and Kolb (1980) summarized the broad view of career development when they defined it as follows:

> Career development involves one's whole life, not just occupation. As such, it concerns the whole person, needs and wants, capacities and potentials, excitements and anxieties,

insights and blindspots, warts and all. More than that, it concerns him/her in the ever-changing contexts of his/her life. The environmental pressures and constraints, the bonds that tie him/her to significant others, responsibilities to children and aging parents, the total structure of one's circumstances are also factors that must be understood and reckoned with. In these terms, career development and personal development coverage, self and circumstances—evolving, changing, unfolding in mutual interaction—constitute the focus and the drama of career development. (pp. 1-2)

The Role of Theory

Shertzer and Stone (1974) defined theory as a statement of general principles, supported by data that are offered as an explanation of a phenomenon. A good theory should summarize and generalize a body of information. It should facilitate our understanding of and provide an explanation for the phenomena within that body of information. It should act as a predictor among variables in that body of information. And, it should stimulate further research. For our purposes, theory is examined to help us understand the behavior of the individuals with whom we work as they are involved in career planning and decision making. Theory also is examined for suggestions about when and how to use career counseling techniques and labor market information. (For a more detailed discussion of the role of theory, see Osipow, 1983, pp. 1-14.)

Theory Classification

Jepsen (1984) suggested that career theories can be divided into two categories: structural and developmental. Structural theories refer to those that focus on individual differences—the structure of a person's characteristics as they influence career behavior. Developmental theories focus on intraindividual differences across the life span—on how individuals grow and develop. From another perspective, Osipow (1983) suggested that there are five categories of theories, including "trait-factor theories, the sociological theories, the self-concept or developmental theories, the personality-in-career theories, and the behaviorally oriented learning approaches" (p. 12). We will combine these classification systems and present brief descriptions of a number of major career theories, implications these theories hold for practice, and suggested readings. More extensive descriptions of these plus other career development theories are provided by Osipow (1983) and Brown and Brooks (1984).

Structural theories discussed are as follows:

- Trait-factor
- Holland's theory of vocational personalities and work environments
- Socioeconomic systems

Developmental theories discussed are as follows:

- Roe's theory of personality development and occupational behavior
- Ginzberg's theory of occupational choice
- Super's theory of career development
- Adult career development
- Decision making
- Krumboltz's theory of social learning
- Cognitive-behavioral

Structural Theories

Trait Factor

Assisting individuals to select an occupation through a process called vocational guidance originated with Parsons (1909) in the early 1900s, became prominent in the 1920s and 1930s, and dominated the field until the 1950s. Parsons' model of vocational guidance, subsequently labeled the trait-factor approach, entailed knowing oneself, knowing the work world, and using true reasoning in understanding one's place in relation to these two sets of data. According to Parsons, the process of vocational guidance involved the following steps:

- Personal data
- Self-analysis
- Person's choice and decision
- Counselor's analysis
- Outlook in the vocational field
- Induction and advice
- Help in fitting into the chosen work

The emergence of differential psychology with its focus on the measurement of individual differences as well as increasing interest in the characteristics of jobs and the abilities required for successful job performance helped to expand and extend Parsons' ideas and those of the other early pioneers of vocational guidance. During the 1920s and 1930s, tests of abilities, aptitudes, and inventories of interests were developed and used. At the same time, increasing attention was given to improving occupational information. In the 1920s and 1930s, the National Vocational Guidance Association worked to improve occupational information by establishing standards for the development and use of occupational information.

Even as work was continuing on revising tests and inventories and developing new ones and updating occupational information standards in the 1940s, 1950s, and 1960s, other approaches to counseling were taking hold. In particular, the client-centered approach (sometimes called the nondirective approach) of Carl Rogers was becoming popular. This, coupled with what several writers viewed as the rigidity of trait-factor theory and an overemphasis on matching people and jobs, led them to suggest that trait-factor theory, as a basis for career counseling, was no longer viable. (Brown, 1984)

To understand this criticism let us look at some basic assumptions underlying trait-factor theory. Frederickson (1982) presented four such assumptions:

- Each individual has a unique pattern of traits that can be accurately and reliably measured.
- Each occupation has a unique pattern of measurable trait requirements that are necessary in order to perform that occupation successfully in a number of settings.
- It is possible to match the individual traits with the job traits.
- The closer the match between individual traits and job requirement traits, the more productivity and satisfaction the person will have in that particular occupation. (p. 18)

Taken literally, these assumptions could lead to (and perhaps did in some instances) a rigid interpretation of career counseling as matching people to jobs at a specific time in their lives. Today, however, these assumptions are understood in looser terms. People and occupations are seen as more heterogeneous than a strict interpretation of these assumptions dictates.

Also, as a result of the development of new career counseling techniques and instruments (Kapes & Mastie, 1982), trait-factor theory, as it is understood today, continues to undergird most career counseling. It also has been incorporated in varying degrees by many other current and comprehensive approaches to career choice and development. This is evident, for example, in Crites' (1981) synthesis of different counseling approaches, including trait-factor, into a comprehensive model for career counseling. It also is evident in Super's (1984) developmental model for career assessment and counseling.

Trait-factor theory suggests a number of implications for counselors. Here are some of them:

- Because individuals possess measurable traits related to occupational choice, assist them to understand themselves, their interests, aptitudes, values, and transferable skills.
- Because occupations can be described in terms of tasks, become familiar with occupational tasks and help individuals learn them so they can differentiate and describe occupations. Also, help them learn about labor markets and how occupations and industries relate to them.
- Because learning how to gather, understand, and apply information about self and the work world is an important skill and is basic to making informed and considered decisions, help individuals learn these skills.

Holland's Theory of Vocational Personalities and Work Environments

Holland (1985) assumes that in our culture, people can be categorized by personality types. These types are described in the six paragraphs below.

Realistic personality. Typically, these are people who prefer to deal more with things than with ideas or people, are more oriented to the present than to the past or future, and have structured patterns of thought. They perceive themselves as having mechanical and athletic ability. They are apt to value concrete things or tangible personal characteristics like money, power, status; they will try to avoid goals, values, and tasks which require subjectivity, intellectualism, or social skills. They tend to be more conventional in attitudes and values because the conventional has been tested and is reliable. They possess a quality of persistence, maturity, and simplicity. Realistic types are found in occupations related to engineering, skilled trades, agriculture, and technical fields.

Investigative personality. These persons are analytical, abstract, and cope with life and its problems by use of intelligence. They perceive themselves as scholarly, intellectually self-confident, having mathematical and scientific ability. They hold less-conventional attitudes and values, tend to avoid interpersonal relationships with groups or new individuals, and achieve primarily in academic and scientific areas. They are likely to possess a high degree of originality, verbal, and math skills. Investigative types are found in occupations related to science, math, and other technical careers.

Artistic personality. This type tends to rely more on feelings and imagination. They perceive themselves as expressive, original, intuitive, nonconforming, introspective, independent, having artistic and musical ability (acting, writing, speaking). They value aesthetic qualities and tend to place less importance on political or material matters. They have artistic aptitudes rather than mathematical aptitudes, avoid direct relationships, and learn to relate by indirect means through their medium. Artistic types are found in occupations related to music, literature, the dramatic arts, and other creative fields.

Social personality. These are people who have high interest in other people and are sensitive to the needs of others. They perceive themselves as liking to help others, understanding others, having teaching abilities and lacking mechanical and scientific abilities. They value social activities, social problems, interpersonal relations. They use their verbal and social skills to change other people's behavior. They usually are cheerful and impulsive, scholarly, and verbally oriented. Social types are found in occupations related to teaching, social welfare positions, and the helping vocations.

Enterprising personality. Persons who are adventurous, dominant, and persuasive are in this personality type. They place high value on political and economic matters and are drawn to power and leadership roles. They perceive themselves as aggressive, popular, self-confident, social, possessing leadership and speaking abilities, and lacking scientific ability. They use their social and verbal skills with others to obtain their political or economic goals. Enterprising types are found in occupations related to sales, supervision of others, and leadership vocations.

Conventional personality. This type tends to be practical, neat, and organized, and to work well in structured situations. They feel most comfortable with precise language and situations where accurate accounting is valued. They perceive themselves as conforming and orderly, and as having clerical and numerical ability. They value business and economic achievement, material possessions, and status. They are happy with and make good subordinates and they identify with people who are strong leaders. Conventional types are found in occupations related to accounting, business, computational, secretarial, and clerical vocations.

While no individual is all one type, people tend to affiliate with, enjoy being around, and be most like one, two, or sometimes three of the types, and tend to shy away from or be less like two or three of the other types. People are categorized by the first, second, and third types that they are most like.

Environments also may be classified according to their demands and to the types of people who work in them. Thus, the descriptions of the environments closely resemble the descriptions of the persons dominating each environment. The following are brief summaries of each of the six model environments:

Realistic environment. The realistic environment is largely dominated by realistic personalities. These personalities are involved in technical and mechanical competencies where there are demands and opportunities to use objects, tools, and machines. This environment—

- Stimulates people to perform realistic activities
- Encourages technical competencies and achievements
- Encourages people to see themselves as having mechanical ability
- Rewards people for the display of conventional values and goals: money, power, and possessions

Investigative environment. The investigative environment is largely dominated by investigative personalities. These personalities are involved in the observation and creative investigation of physical, biological, and cultural phenomena. This environment—

- Stimulates people to perform investigative activities
- Encourages scientific competencies and achievements

- Encourages people to see themselves as scholarly, having mathematical and scientific values
- Rewards people for the display of scientific values

Artistic environment. The artistic environment is largely dominated by artistic personalities. These personalities are involved in unstructured, free, and creative acts producing art forms and products. This artistic atmosphere—

- Stimulates people to engage in artistic activities
- Encourages artistic competencies and achievements
- Encourages people to see themselves as expressive, original, intuitive, nonconforming, independent, and as having artistic abilities (acting, writing, speaking)
- Rewards people for the display of artistic values

Social environment. The social environment is largely dominated by social personalities. These personalities are involved in social activities to inform, train, and enlighten others. This environment—

- Stimulates people to engage in social activities
- Encourages social competencies
- Encourages people to see themselves as liking to help others, understanding others, and being cooperative and sociable
- Rewards people for the display of social values

Enterprising environment. The enterprising environment is largely dominated by enterprising personalities. These personalities are involved in the manipulation of others to obtain organizational or self-interest goals. This environment—

- Stimulates people to engage in enterprising activities, such as selling or leading others
- Encourages enterprising competencies and achievements
- Encourages people to see themselves as aggressive, popular, self-confident, social, and as possessing leadership and speaking abilities
- Rewards people for display of enterprising values and goals: money, power, status

Conventional environment. The conventional environment is largely dominated by conventional personalities. These personalities are involved in conventional activities such as keeping data ordered, keeping records, filing and reproducing materials, and operating business and data processing machines. This environment—

- Stimulates people to engage in conventional activities such as recording and organizing data or records
- Encourages conventional competencies and achievements
- Encourages people to see themselves as conforming, orderly, and as having clerical competencies
- Rewards people for the display of conventional values: money, dependability, conformity

Individuals search for work environments that will allow them to exercise their skills and abilities, express their attributes and values, and take on agreeable roles. Individuals also seek out persons similar to themselves, and where similar people congregate, they create environments that reflect their personality types. Behavior, especially job satisfaction and stability, is determined by the interaction between personality characteristics and the characteristics of the work environment.

Holland also makes three additional assumptions about persons and environments. These assumptions are labeled *consistency*, *differentiation*, and *congruence*. To explain these assumptions we will use the hexagon model Holland (1985) used in explaining interrelationships among the six personality-work environments, as shown in Figure 1-1.

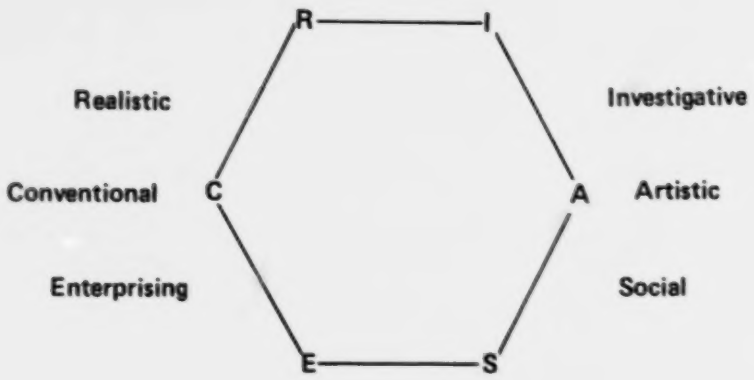

Figure 1-1. Holland's hexagon model.

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Consistency: Within a person or an environment, some pairs of types are more closely related than others. For example, Realistic and Investigative types have more in common than Conventional and Artistic types. Consistency is the degree of relatedness between personality types or between environmental models. Degrees of consistency or relatedness are assumed to affect vocational preference. For instance, a person who resembles the Realistic type most and next most resembles the Investigative type (a Realistic-Investigative person) should be more predictable than a Realistic-Social person. (Holland, 1985, pp. 4-5)

Differentiation: Some persons or environments are more clearly defined than others. For instance, a person may closely resemble a single type and show little resemblance to other types, or an environment may be dominated largely by a single type. In contrast, a person who resembles many types or an environment that is characterized by about equal numbers of the six types is undifferentiated or poorly defined. The degree to which a person or an environment is well defined is its degree of differentiation. (Holland, 1985. p. 5)

Congruence: Different types require different environments. For instance, Realistic types flourish in Realistic environments because such an environment provides the opportunities and rewards a Realistic type needs. Incongruence occurs when a type lives in an environment that provides opportunities and rewards foreign to the person's preferences and abilities—for instance, a Realistic type in a Social environment. (Holland, 1985, p. 5)

Holland's theory of vocational personalities and work environments suggests a number of implications for practice. Here are two of them:

- Because occupational information (labor market information) is an important tool in career counseling, Holland codes and their relationships to occupations become an excellent vehicle for career exploration and decision making.
- Because knowledge of Holland's classification system is helpful in career exploration and decision making, teach the system to individuals so they can use it as they explore occupations and use labor market information.

Socioeconomic Systems

Theorists who focus on socioeconomic variables in career development deal with the processes by which occupations are passed on from generation to generation, the impact of environmental factors on options and decisions, the impact and nature of the economy, and the meaning of work in our society. Theorists in this group assume that one's socioeconomic background has a great deal to do with the occupational choices one considers and makes. Influences on occupational choices include such variables as occupation and income of parents, education of parents, sex, race, ethnic group, religion, place and type of residence, family stability, size of family, birth order, values of peers, school environment, and community.

An excerpt from Crites (1969) sheds light on this approach to career development.

> According to industrial and occupational sociologists, the major factor in the determination of an individual's vocational choice is the impact of the culture and society in which he lives upon the goals and objectives he learns to value. In selecting an occupation, the individual is more or less directly influenced by several social systems . . . described by Super and Bachrach (1957, p. 104) as follows: The individual confronted with . . . choice decisions may be viewed as occupying the center of several concentric circles which represent the social systems with which he interacts. These systems are instrumental in his decisions and choices. The outer circle represents general American cultural variables (free enterprise, American democracy, Western values, American mores). Moving inward we come to the subcultural forces which exert themselves on the individual (class, values, attitudes, customs). The next circle represents community variables (peer relationships, ethnic groupings, religious influences, social contacts). Finally, most directly impinging on the individual are the organizational settings in which he is operating at any given time: his home, school, family, church, and so on. (p. 84)

Knowledge from the socioeconomic systems approach to career development was not widely applied to career counseling in the past, probably because it emphasized groups rather than individuals and because it did not deal directly with the processes by which socioeconomic factors influenced people. Today, however, professional attention is being directed to just such factors. This is being prompted by the increasing attention being given to rethinking traditional sex roles and to homemakers returning to the work force or entering it for the first time.

Along with the factors of sex, race, and socioeconomic background, recent literature identifies the following economic factors as being important in occupational choices:

- Labor supply
- Labor demand

- Public knowledge of various opportunities and future job opportunity outlook trends
- One's ability to secure necessary training and education as determined by individual resources as well as number of openings available for such experiences
- Relative monetary return for services rendered

Related to the question about the kind of influences that have an impact on career development is the question of how these influences do or do not shape career choices. Some writers and researchers tend to emphasize the role chance plays in this process. Miller and Form (1951), two occupational sociologists, analyzed the occupational backgrounds of a large group of people and came to this conclusion:

> One characteristic is outstanding in the experience of most of the case histories that have been cited. In their quest of a life work there has been a vast amount of floundering, and chance experience appears to have affected choices more than anything else. No single motivating influence appears which has finally crystallized into a wish for a certain occupation. Chance experiences undoubtedly explain the process by which most occupational choices are made. (p. 660)

Osipow (1969) expanded on the role of chance by noting that

> it employs few, if any, constructs to explain the relationship between events in the lives of individuals. The view may be summarized in a single sentence. People follow the course of least resistance in their educational and vocational lives. It may be a moot point as to whether the least resistance theory is more valid than one of the more self-conscious views of career development. The fact remains that in many cases people do react to their environments and follow those avenues educationally and vocationally which they perceive to be open to them with a minimum of difficulty. (p. 15)

The chance or least resistance approach has some interesting implications for career development. The theory assumes that individuals have a tendency to pursue alternatives with which they are already familiar and which they think will be easy for them. People are likely to delay making decisions and then grasp opportunities that arise without considering how they fit into a career plan. In other words, a major role is ascribed to factors that are not within the control of the individual, and occur accidentally, but with a major effect on one's career development (Caplow, 1954).

Some implications arising from socioeconomic systems theory include these:

- Because individuals' environments have an impact on the occupational options open, or at least perceived to be open to them, provide opportunities to broaden their horizons through structured career exploration groups and career and labor market information. Expose individuals to alternatives and give them the skills to relate those alternatives to the career exploration and choice process.
- Because individuals' cultural backgrounds, experiences, and values have an impact on the meaning they may attach to work, use their backgrounds, experiences, and values as a springboard for discussion.
- Because some individuals may follow the path of least resistance, or the path with which they are familiar in their career exploration, assist them to appreciate career exploration as a *quest* rather than a *track* to follow routinely.

- Because occupational choice in part is a product of external factors such as occupational demand and training opportunities, make individuals aware of these outlooks and opportunities.
- Because monetary return is a factor in career decision making, help individuals clarify the life-style and income level they perceive they may need.
- Because labor markets change, assist individuals in developing adaptive skills to deal with changing occupational demands.

Developmental Theories

Roe's Theory of Personality and Occupational Behavior

Roe's theoretical work in career development focused on the possible relationships between occupational behavior (including occupational choice) and personality. She incorporated Maslow's (1954) concept of basic needs into her thinking because it offered a direct way to relate the relevance of occupations to the satisfaction of basic needs. "In our society, there is no single situation that is potentially so capable of giving some satisfaction at all levels of basic needs as the occupation" (Roe & Lunneborg, 1984, p. 32).

To carry forward her thinking, Roe developed an occupational classification system. It has eight occupational groups and six levels. The eight groups are classified using interest-type labels while the six levels are classified according to responsibility and skill.

Groups	Levels
I. Service	1. Professional and Managerial 1
II. Business Contact	2. Professional and Managerial 2
III. Managerial	3. Semiprofessional
IV. Technology	4. Skilled
V. Outdoor	5. Semiskilled
VI. Science	6. Unskilled
VII. General Cultural	
VIII. Arts and Entertainment	

In 1957, Roe formulated a number of propositions concerning the early determinants of occupational choice. These propositions were modified subsequently and appeared in a monograph by Roe and Siegelman (1964).

1. Genetic inheritance sets limits to the potential development of all characteristics, but the specificity of the genetic control and the extent and nature of the limitation are different for different characteristics. It is probable that the genetic element is more specific and stronger in what we call intellectual abilities and temperament than it is in such other variables as interests and attitudes.

2. The degrees and avenues of development of inherited characteristics are affected not only by experience unique to the individual but also by all aspects of the general cultural background and the socioeconomic position of the family. This proposition takes account not only of the fact that individual experiences affect which and how far various inherited characteristics may be developed but also the fact that such factors as race, sex, and the social and economic position of the family are importantly involved. This proposition is exemplified in the formula presented later.

3. The pattern of development of interests, attitudes, and other personality variables with relatively little or nonspecific genetic control is primarily determined by individual experiences, through which involuntary attention becomes channeled in particular directions. The important word here is *involuntary*. The elements in any situation to which one gives automatic or effortless attention are keys to the dynamics of behavior. This proposition is clearly related to hypotheses concerning the relations between personality and perception.

    a. These directions are first determined by the patterning of early satisfactions and frustrations. This patterning is affected by the relative strengths of various needs and the forms and relative degrees of satisfaction they receive. The two latter aspects are environmental variables.

    b. The modes and degrees of need satisfaction determine which needs will become the strongest motivators. The nature of the motivation may be quite unconscious. Possible variations are: (1) Needs that are satisfied routinely as they appear do not become unconscious motivators. (2) Needs for which even minimum satisfaction is rarely achieved will, if higher order (as used by Maslow, 1954), become expunged or will, if lower order, prevent the appearance of higher order needs and will become dominant and restricting motivators. (3) Needs for which satisfaction is delayed but eventually accomplished will become (unconscious) motivators, depending largely on the degree of satisfaction felt. Behavior that has received irregular reinforcement is notably difficult to extinguish (Ferster and Skinner, 1957). The degree of satisfaction felt will depend, among other things, on the strength of the basic need in the given individual, the length of time elapsing between arousal and satisfaction, and the values ascribed to the satisfaction of this need in the immediate environment.

4. The eventual pattern of psychic energies, in terms of attention directedness, is the major determinant of interests.

5. The intensity of these needs and of their satisfaction (perhaps particularly as they have remained unconscious) and their organization are the major determinants of the degree of motivation that reaches expression in accomplishment.[1]

[1]From *Origin of Interests* (p.5) by A. Roe and M. Siegelman, 1964, Washington, DC: American Personnel and Guidance Association. Copyright by AACD. Reprinted with permission. No further reproduction authorized without permission of AACD.

Roe concentrated her research on Proposition 3a, theorizing "that different qualities of early parent-child interaction would result in the development of different interests and, through that, of different occupational choices" Roe, 1972, pp. 71-73). She developed the following model (see Figure 1-2) to categorize parent-child interests and relate them to the occupational classification system described previously.

Research support for Roe's propositions has been lacking. Isaacson (1985) summed up some reasons for the lack of positive results as follows:

> Support for Roe's hypotheses has been found in subsequent research only rarely. Several problems contribute to this lack of research support. First, the emotional climate of the home, in most research to date, has been determined by recall of the research subject

long after early childhood, or identified by elementary age children on the basis of very simple criteria. Second, emotional climate may be inconsistent and variable. Third, many of the propositions are somewhat vague and difficult to state in specific, researchable terms. Finally, children are subjected to many other influences even within the earliest years of childhood. This lack of research support does not justify writing off Roe's proposals. Most of us can recognize within our own childhood experience the influence of family and home and its continuing impact on our lives. (p. 55)

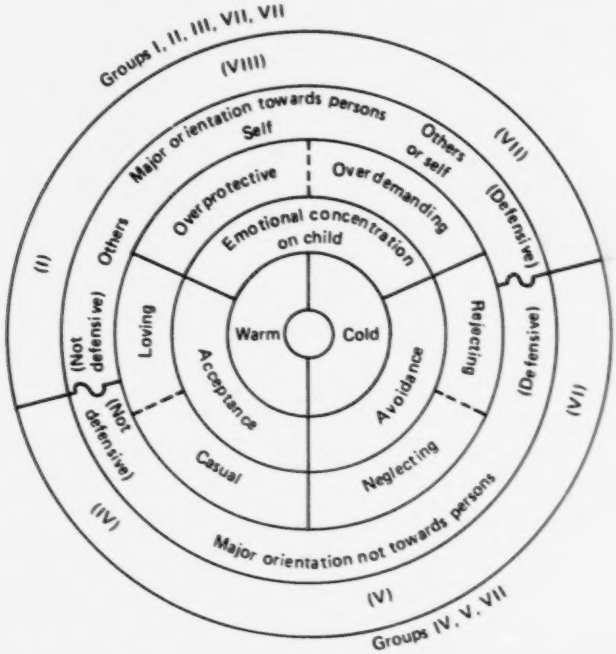

Figure 1-2. Early home climate and its relation to occupational classification.

Note. From *Origins of Interest* by A. Roe and M. Siegelman, 1964, Washington, DC: American Personnel and Guidance Association. Copyright by AACD. Reprinted with permission. No further reproduction authorized without permission of AACD.

In addition to her theorizing and research on the impact of early childhood experiences on occupational choice, Roe and Lunneborg (1984) described the "variables that enter into vocational behavior, their relative importance, how they interact, and how those interactions may change with time" (p. 50) in an algebraic formula. The formula has four groups of factors, "each of which is designated by a letter in both upper and lower case. The lower case letters represent coefficients indicating the weight to be attached to the factor; they may vary with time and circumstances" (p. 50). The formula is:

$$S[(eE + bB + cC) + (fF, mM) + (lL + aA) + (pP \times gG \times tT \times iI)]$$

where S = sex; E = the general state of the economy; B = family background; L = learning and education; A = special acquired skills; P = physical; C = chance; F = friends, peer group; M = marital situation; G = cognitive (g); T = temperament and personality; and I = interests and values (p. 50).

Some of the implications arising from this perspective include the following:

- Because home atmosphere and parental attitudes are important, work with parents to help them understand their role in their childrens' career development.
- Because career choices are seen, at least in part, as products of socialization, help individuals understand the part socialization plays and how, as they grow and develop, they need to learn to take responsibility for their own behavior.
- Because home atmosphere and parental attitudes play a role in sex stereotyping, assist parents and young people to understand their values and the impact of sex role stereotyping on future occupational choices.

Ginzberg's Theory of Occupational Choice

Ginzberg, Ginsburg, Axelrad, and Herma (1951) were early pioneers in the formulation of the concept of occupational choice as a process that unfolded over time. Their initial views about the process are summarized as follows:

1. Occupational choice is a developmental process that typically takes place over a period of 10 to 15 years.
2. The process is largely irreversible.
3. The process of occupational choice ends in a compromise between interests, capacities, values, and opportunities.
4. There are three periods of occupational choice—fantasy, tentative, and realistic.
5. The factors that influence one's occupational choice are individual values, emotional factors, amount and kind of education, and the impact of reality through environmental pressures.

Their 1951 developmental theory of occupational choice is outlined as follows:

1. Fantasy (0 to 11 years)
   Child believes he or she can do whatever he or she wants; needs or impulses translated into occupational choices

2. Tentative Period (11 to 17 years)
   Choices tentative as reality factors not given adequate consideration

   —Interests (11 to 12 years)
   Assume choice will be based on interest

   —Capacity (13 to 14 years)
   Recognize the need to test capacities and take them into account in making choices

   —Values (15 to 16 years)
   Values enter into choice process overriding interests and capacities

   —Transition (17 years)
   All three previously considered but not reality

3. Realistic (17 years to young adulthood)
   Choices based on compromise between reality and personal factors

   —Exploration
      Opportunities are explored and options checked

   —Crystallization
      Choice with compromise made

   —Specification
      Choice delimited and final commitment

In 1972, Ginzberg presented a major restatement of his and his associates' original theory centering on the choice process, irreversibility, and compromise. According to the 1972 restatement, the process of occupational choice, once thought of as coming to closure during young adulthood, is now seen as extending over a person's working life. The concept of irreversibility has been modified so that while early decisions are still seen as important, it is understood that career changes can and do take place over one's working life. Finally, Ginzberg suggested that the concept of optimization be substituted for the concept of compromise. Instead of thinking of occupational decision making as a one-time compromise, emphasis is placed on occupational decision making as a lifelong dynamic process. Based on Ginzberg's restatement, "Occupational choice is a lifelong process of decision making in which the individual constantly seeks to find the optimal fit between career goals and the realities of the world of work " (Ginzberg, 1984, p. 179).

An implication of this approach is—

- Because career development occurs throughout the life span, career counseling, career exploration, and career decision-making assistance should be available to individuals of all ages and all circumstances.

Super's Theory of Career Development

In the early 1950s, Super, together with a number of colleagues, began to formulate his theory of career development. A set of 10 propositions concerning the structure and nature of career development was published in 1953 (Super, 1953). In 1957, two more propositions were added. These 12 propositions are presented here as modified and updated by Super (Super, 1984).

1. People differ in their abilities, interests, and personalities.
2. People are qualified, by virtue of these characteristics, each for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests, and personality traits, with tolerances wide enough to allow both some variety of occupations for each individual and some variety of individuals in each occupation.
4. Vocational preferences and competencies, the situations in which people live and work, and hence their self-concepts, change with time and experience, although self-concepts are generally fairly stable from late adolescence until late maturity, making choice and adjustment a continuous process.
5. This process of change may be summed up in a series of life stages (or "maxicycle") characterized as those of growth, exploration, establishment, maintenance, and decline, and these stages may in turn be subdivided into (a) the fantasy, tentative, and realistic phases of the exploratory stage and (b) the trial and stable phases of

the establishment stage. A smaller cycle takes place in transitions from one stage to the next or each time an unstable or multiple-trial career is unstabilized, which involves new growth, reexploration, and reestablishment.

6. The nature of the career pattern—that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs—is determined by the individual's parental socioeconomic level, mental ability, and personality characteristics, and by the opportunities to which he or she is exposed.

7. Development through the life stages can be guided, partly by facilitating the maturing of abilities and interests and partly by aiding in reality testing and in the development of self-concepts.

8. The process of career development is essentially that of developing and implementing self-concepts; it is a synthesizing and compromising process in which the self-concept is a product of the interaction of inherited aptitudes, physical make-up, opportunity to play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows.

9. The process of synthesis of or compromise between individual and social factors, between self-concept and reality, is one of role playing, whether the role is played in fantasy, in the counseling interview, or in real-life activities such as classes, clubs, part-time work, and entry jobs.

10. Work satisfactions and life satisfactions depend on the extent to which the individual finds adequate outlets for abilities, interests, personality traits, and values; they depend on establishment in a type of work, a work situation, and a way of life in which one can play the kind of role that growth and exploratory experiences have led one to consider congenial and appropriate (Super, 1953, pp. 189-190).

11. The degree of satisfaction people attain from work is proportionate to the degree to which they have been able to implement self-concepts.

12. Work and occupation provide a focus for personality organization for most men and many women, although for some persons this focus is peripheral, incidental, or even nonexistent, and other foci, such as leisure activities and homemaking, are central (Super and Bachrach, 1957, pp. 11-12). (Social traditions, such as sex-role stereotyping, racial and ethnic biases, and the opportunity structure as well as individual differences are important determinants of preferences for roles such as those of worker, leisurite, and homemaker.) (pp. 194-196)

In 1951, a major research program called the Career Pattern Study (CPS) was undertaken in Middletown, New York to test some of the hypotheses derived from the theory. The CPS began following the lives of 138 eighth-grade boys and 142 ninth-grade boys. Super and his colleagues theorized that the movement of individuals through life stages was both a typical and correct process that could be loosely tracked according to an age-referenced time line. (See proposition 5.) The subjects were followed up briefly at age 21, more intensively at age 25, and then again at about age 36. The findings from the CPS have been made available periodically in a series of monographs (Jordaan & Heyde, 1979, Super & Overstreet, 1960) and in an article by Super (1985).

An important concept in Super's formulation of career development is that of career maturity. Several writers have struggled with the definition of career maturity, but, in general, it denotes a readiness to engage in the developmental tasks appropriate to the age and level in which one finds oneself. Maturity, however, is not something that is ever reached, but instead, is the process relative to where one is at any given time. This formulation of the concept helps to promote a

life-span notion rather than a static and irreversible pattern of career development. Recently, Super (1983) refined his notion of career maturity. He suggested that the term for adults should be career adaptability. Included in his formulation of career maturity (adaptability) are the constructs of planfulness (including autonomy, time perspective, and self-esteem), exploration, information, decision making, and reality orientation.

In 1980, Super summarized much of his previous thinking and presented the idea of multiple roles over the life span. The life-career rainbow (see Figure 1-3) was used as a graphic device for portraying these roles unfolding over the life span.

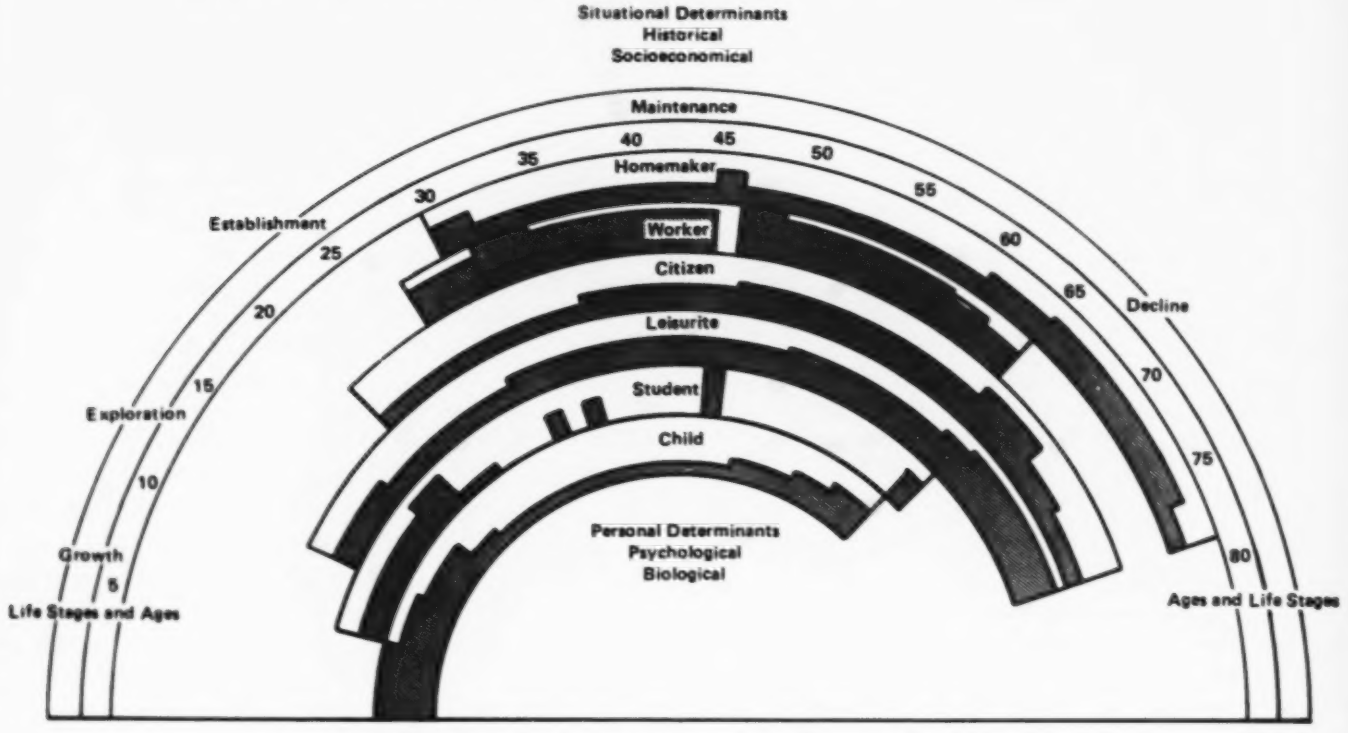

Figure 1-3. The life-career rainbow: six life roles in schematic life space.

Note. From "Career and Life Development" in D. Brown & L. Brooks (Eds.). *Career Choice and Development* (p. 201) by D. E. Super, 1984, San Francisco: Jossey-Bass Publishers.

Some implications arising from Super's theory of career development include the following:

- Because one's life career includes more than an occupation—it includes other life roles as well—career counseling should not be restricted to occupational choice only.
- Because occupational decisions are similar to other life decisions and continue to be made throughout the life span, career counseling should focus on decision making over the life span.

- Because career development can be described as a stage process with developmental tasks at each stage and since the nature of these stages is not lockstep but cyclical—indicating that individuals in middle or later life may return to earlier stages of development—counselors need to help clients understand that they are not venturing outside of normalcy when they do.
- Because persons who are at different stages of development may need to be counseled in different ways, and since persons at similar stages, but with different levels of career maturity, also need to be counseled in different ways, learn how to use life stages and tasks to make diagnoses and select appropriate intervention strategies.

Adult Career Development

For our purposes, adult career development theories can be considered as stretching along a continuum, depending on whether they explain adaptive career behavior by chronological age, life stages, the life span, individual idiosyncracies, or transitions.

Chronological age. From a chronological age perspective, particular transitions are closely linked to chronological age. Using a small sample of blue-collar and white-collar men between the ages of 18 and 45, Levinson and his colleagues sought to identify "relatively universal, genotypic, age-linked adult developmental periods" (Levinson, Darrow, Klein, Levinson, & McKee, 1978, p. 49). They stated that

> one of our greatest surprises was the relatively low variability in the age at which every period begins and ends. It was not a prediction we made in advance. . . . This finding violates the long-held and cherished ideas that individual adults develop at different paces. (Levinson et al., 1978, p. 318)

Sheehy (1974) researched the life stories of 115 middle-class Americans, ages 18-55, to (1) trace inner change in her subjects, (2) compare the developmental patterns of men and women, and (3) examine the predictable crises for couples. Her conclusions were that men and women continue growing up from ages 18 to 50; there are predictable crises (passages) at each step; the steps are the same for both sexes, but the developmental rhythms are not; and we can use each crisis to stretch to our full potential.

Life stages. A second group of theorists using life stages asserts that human beings pass through an invariable sequence of developmental stages, though these stages are not necessarily linked with chronological age; that is, some people move through faster than others, and some people may stop at one stage and never move on. Erikson (1950) used both physiological and societal considerations in charting eight life stages. Each life stage unfolds in sequence; each is triggered by a turning point of increased personal vulnerability and potentiality; and each confronts the individual with central issues demanding resolution. Examples of his adult stages and life tasks are outlined as follows:

Stages	Tasks
Young adulthood	Intimacy vs. isolation
Middle age	Generativity (a commitment to and caring for the next generation) vs. stagnation
Maturity	Integrity (a belief that one's life has had purpose) vs. despair

Havighurst (1952) saw the tasks of adulthood stemming mainly from the social role adults take on—worker, mate, parent, homemaker, citizen—and he concluded that each developmental task produces a readiness to learn, which at its peak presents a teachable moment. Some of the tasks are listed here with Havighurst's ordering of development.

Young Adult	Middle Adult	Old Adult
Select mate	Achieve civic responsibility	Adjust to decreased health or income
Learn to live with partner	Maintain home	Adjust to loss of spouse
Manage home	Guide adolescents	Fulfill social obligations
Rear children	Develop leisure	Affiliate with own age group
Begin occupation	Adjustment of body changes	Adjust to retirement
Civic responsibility	Relate to spouse	

Life span. Using the life span as a focus, some theorists hold a position that rests on the following premises:

- Developmental change and aging form a continual process not limited to any particular stage in life.
- Change occurs in various interrelated social, psychological, and biological domains of human behavior and functioning.
- Life-course development is multidetermined.

According to this viewpoint, to understand a particular stage of life, including middle and old age, it is necessary to place it within the context of the preceding and following developmental changes and stabilities and within its historical context (Abeles & Riley, 1977). This approach is in opposition to theories involving adult stages on the grounds that stages cast development as unidirectional, hierarchical, sequenced in time, cumulative, and irreversible—ideas that are "not supported by commanding evidence" (Brim & Kagan, 1980).

Individual idiosyncracy. The individual idiosyncracy viewpoint is diametrically opposed to the view that transitions are inextricably bound to chronological age or that they follow an invariable sequence. Neugarten (1968, 1979) emphasized, instead, variability or what she calls "individual fanning out." She and her colleagues on the Committee on Human Development at the University of Chicago, in their study of middle age and late life, contributed interesting insights into the way social and cultural influences affect adult development. Their research indicated that most people have definite ideas they learn from society about the appropriate ages to do certain things such as marrying, having children, and selecting one's career direction. They also found that in the early or mid-40s, individuals stop thinking in terms of time since birth and begin to compute time left to live. Evidence in support of this position comes from the Grant Study (Vaillant, 1977), which spanned over 35 years in the lives of more than 200 men (most of them from high socioeconomic backgrounds and of high ability), starting from the time they were college sophomores. Vaillant wrote:

> When the Grant Study was started, the hope was that it would allow prediction and that once all the data were in, college counselors could interview sophomores and tell them what they should do with their lives. This was not to be. The life cycle is more than an invariant sequence of stages with single predictable outcomes. The men's lives are full of surprises. (p. 373)

Transitions. In the transitions approach to adult career development, Schlossberg (1981) has integrated the theories of Neugarten, Lowenthal, and others into a model for analyzing human adaptation to transition. The model is reproduced in Figure 1-4 and includes the three sets of factors that influence adaptation to transition:

1. The characteristics of the particular transition (positive or negative, expected or unexpected)
2. The characteristics of pre- and posttransition environment (amount of family and institutional support)
3. The characteristics of the individual who is experiencing the transition (age, health, values)

For Schlossberg, a transition is not so much a matter of change as it is a matter of individuals' perceptions of change. Adult lives are marked by the continuous adaptation to transitions which result from (1) the general absence of change, or new life events; (2) the failure of an expected event or change to occur; or (3) the mitigation of events or circumstances formerly considered stressful.

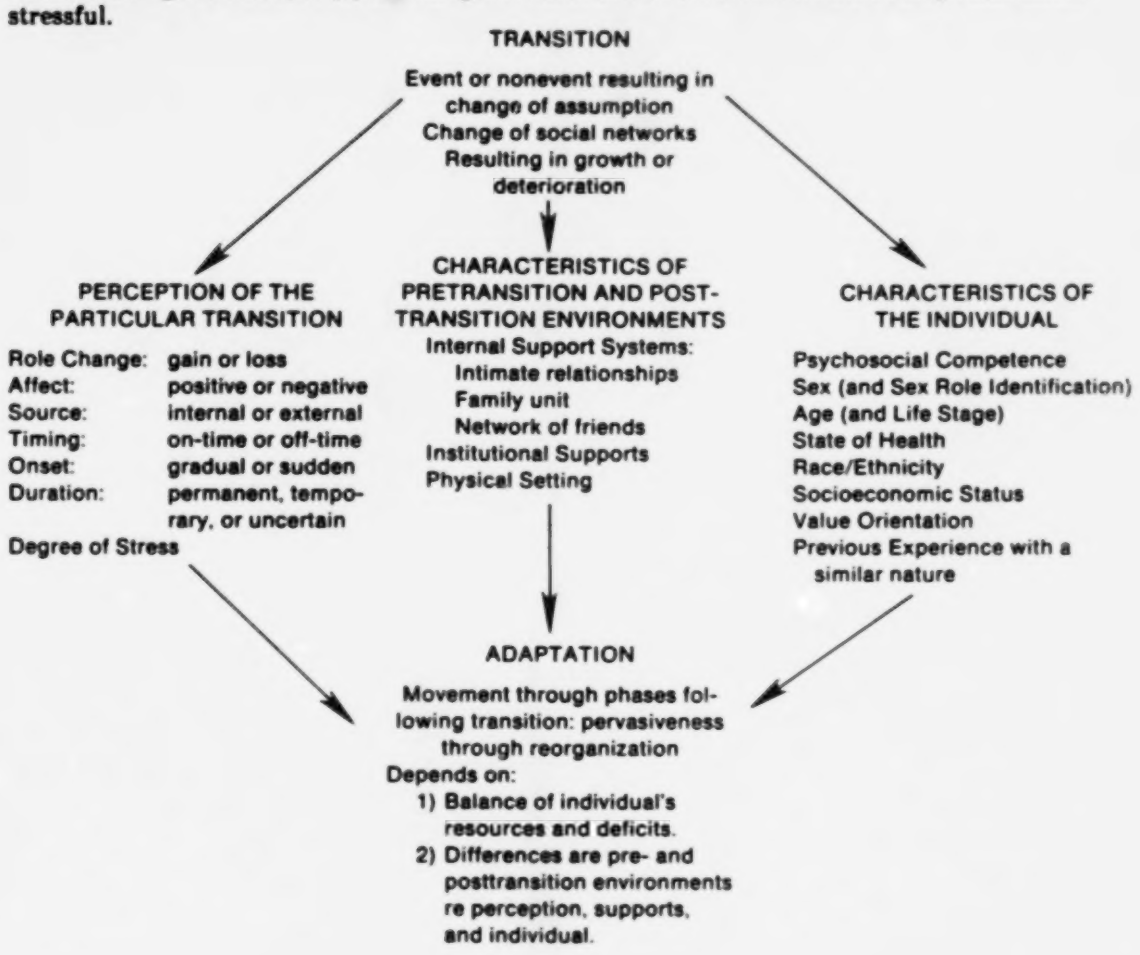
TRANSITION
Event or nonevent resulting in change of assumption
Change of social networks
Resulting in growth or deterioration
PERCEPTION OF THE PARTICULAR TRANSITION
Role Change: gain or loss
Affect: positive or negative
Source: internal or external
Timing: on-time or off-time
Onset: gradual or sudden
Duration: permanent, temporary, or uncertain
Degree of Stress
CHARACTERISTICS OF PRETRANSITION AND POST-TRANSITION ENVIRONMENTS
Internal Support Systems:
Intimate relationships
Family unit
Network of friends
Institutional Supports
Physical Setting
CHARACTERISTICS OF THE INDIVIDUAL
Psychosocial Competence
Sex (and Sex Role Identification)
Age (and Life Stage)
State of Health
Race/Ethnicity
Socioeconomic Status
Value Orientation
Previous Experience with a similar nature
ADAPTATION
Movement through phases following transition: pervasiveness through reorganization
Depends on:
1) Balance of individual's resources and deficits.
2) Differences are pre- and posttransition environments re perception, supports, and individual.

Figure 1-4. A transition model to career development.

Note. From "A Model for Analyzing Human Adaptation to Transition" by N.K. Schlossberg, 1981, *The Counseling Psychologist, 9*, p. 5. Copyright 1981 by the American Psychological Association. Reprinted by permission.

An implication of adult career development theories is—

- Because more people are changing occupations at later stages of career development, be open to people who want to change, and understand and empathize with the frustration, pain, and joy of those who do.

Decision Making

Decision-making theory suggests that although career development is a continuous process, there are critical decision points that occur when individuals face the selection of an entry job for the first time, a change in jobs, or a change in educational plans. A well-known decision-making theory is that of Tiedeman and O'Hara (1963). It states that individuals' career identities are formed by the decision-making processes that are subject to individuals' comprehension and will. The model is an attempt to help individuals bring to their consciousness all of the factors inherent in making decisions so that they will be able to make choices based on the full knowledge of themselves and on appropriate external information. Tiedeman and O'Hara's model divides the process of decision making into two aspects, anticipation and accommodation. The anticipation period consists of individuals' preoccupation with the steps and details from which decisions are fashioned. The accommodation period is the change from imagination and choice to the implementation and reality-based adjustments that occur between self and external reality, once a choice is made and implemented (Dudley & Tiedeman, 1977).

In the case of both anticipation and accommodation, the following substages were added to explain further the process of decision making (Dudley & Tiedeman, 1977; Gordon, 1981):

1. Anticipation Period
   - Exploration Stage
     —Aware of problem
     —Lack information of self and occupation
     —Not motivated to explore options
   - Crystallization Stage
     —Identify alternatives
     —Cost and benefit of goals considered
     —Values are hierarchically arranged
     —No commitment publicly
   - Choice Stage
     —Motivation toward choice determined by certainty that is related to thoroughness of decision process
     —Relief from anxiety begins
   - Clarification Stage
     —Image of future becomes more accurate and elaborate
     —Removes doubts
     —Details are made more explicit
2. Accommodation Period
   - Induction Stage
     —Reality contact with work environment
     —Identification of self with work environment
     —Acceptance by group

- **Reformation Stage**
  —Assertively involved in group
  —Tries to bring group's values more in line with self values
  —Stronger sense of self than group
- **Integration Stage**
  —Differentiation in identification achieved
  —Synthesis of self and group
  —Successful image of self and group considers one successful

Another decision-making model was developed by Gelatt, Varenhorst, Carey, and Miller (1973). It was published by the College Entrance Examination Board under the title *Decisions and Outcomes*. These authors identified the three major requirements of skillful decision making as follows:

1. Examination and recognition of personal *values* (the deciding self)
2. Knowledge and use of adequate, relevant *information* (before deciding)
   —possible alternative actions
   —possible outcomes (consequences of actions)
   —probability of outcomes (relationship between actions and outcomes)
   —desirability of outcomes (personal preferences)
3. Knowledge and use of an effective *strategy* for converting this information into action

Still another decision-making model was developed as a part of the Career Skills Assessment Program of the College Board (1977, p. 2). The steps involved and examples are as follows:

Steps	Examples
1. Define the problem.	"What should I do the year after I graduate from high school?"
2. Establish an action plan.	"I'll spend 10 hours between now and December 15 investigating possibilities."
3. Clarify values.	"What's important to me is to train for a job that will bring me into daily contact with many different people."
4. Identify alternatives.	"I'll list possibilities: (1) attend the community college, (2) work a year first, (3) . . ."
5. Discover probable outcomes.	"I'm going to talk with a number of people who are now doing the kind of work I like and see how they got started."
6. Eliminate alternatives systematically.	"I've dropped State College from consideration. Now I'll look more closely at the remaining two alternatives."
7. Start action.	"By January 15 I'll apply to three colleges that have work experience programs."

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Some implications stemming from career decision-making theories are as follows:

- Since decision making is related to personality and values development, provide experiences to individuals that contribute to their emotional maturity, self-concept, and values orientation.
- Because one of the first steps in decision making is gathering information, provide information resources to individuals and the know-how to use them.
- Because individuals habitually employ different decision-making strategies, facilitate learners' discovery of what their strategies are and how they might be improved.
- Because decision making is a learned process, teach the specific skills of decision making to individuals.
- Because making choices is the responsibility of the chooser, give individuals the tools with which they can identify and make their own decisions.

Krumboltz's Theory of Social Learning

Krumboltz (Krumboltz & Baker, 1973; Krumboltz, Mitchell, & Jones, 1979) developed a theory of career decision making to explain how career interests develop, how the environment influences one's career decision making, and the manner in which career decision-making skills are developed. Krumboltz holds that career decision making is influenced by genetic endowment, environmental conditions and events, and learning experiences. Specifically, career decision-making learning takes place in a way consistent with other social learning.

There are three main categories of learning, according to social learning theorists. The first one is *reinforcement* in which certain behaviors, attitudes, and decisions are rewarded by self, others, or the environment. The second category is *modeling* or witnessing another person engaging in certain behaviors and consequently being rewarded for those behaviors. The third category is *contiguous pairing*, or classical conditioning. In this category, certain behavior or attitude coincides with a reward or a punishment so that consequently that behavior is later approached or avoided—even when the original reward or punishment is no longer present.

All of these learning categories impinge on individuals and play a major role in the development of task approach skills. These skills help individuals engage in career decision making and participate in those activities that will lead to the solution of career-related problems. Thus, they may be seen as a sort of readiness for career decision making or even as career maturity. They lead to self statements and feelings about one's own career decision-making ability and enable individuals to predict their future career decision-making actions such as going on a job interview or applying for a training program.

For Krumboltz, interests are a consequence of learning, and learning, not interests, is what leads people to make occupational choices. He sees interest inventories as instruments that do not tap interests, but internal responses to prior learning. Thus, he sees the process of career planning and development as one in which a change in learning will produce a change in preferences and interests. A major implication stemming from Krumboltz's theory is that we need to provide individuals with a wide variety of learning experiences. Social learning theory views occupational undecidedness as an information deficit, not as a sign of immaturity. Career counseling is seen, not merely as a process of matching existing personal characteristics with existing job characteristics, but as a process of opening up new learning experiences and motivating individuals to initiate career-relevant exploratory activities.

Some implications stemming from the social learning approach are as follows:

- Because interests and decision-making skills are learned, provide experiences through a coordinated career development program to enable persons to be exposed to as wide a variety of experiences as possible.
- Because career decision making is a learned process and since it is similar to decision making in noncareer areas of life, teach decision making as a skill that can be used in all areas of life.

Cognitive-Behavioral Theory

The application of cognitive theory to career development is relatively new. It grew out of the cognitive-developmental and cognitive-behavioral models used in counseling therapy. Theorists such as Bandura, Beck, Ellis, Meichenbaum, and Skinner laid much of the groundwork upon which these theories rest. During the past decade, others have modified and extended their ideas and applied them to career counseling (Keller, Biggs, & Gysbers, 1982).

According to Rest (1974), cognitive-developmental theories are built around structural organization, developmental sequence, and interactionism.

Structural organization. Information processing is of central importance in cognitive models. Individuals are seen as active interpreters of their environment. Individuals selectively attend to certain stimuli, place a meaningful order on these stimuli, and develop principles to guide behavior and solve problems. The way persons process information is determined by relatively fixed patterns called cognitive structures. These structures or thought processes define how persons view themselves, others, and the environment. The way people think will determine how they behave. Changes in individuals' cognitive structures must take place before changes in behavior can occur.

Developmental sequence. Individual development is seen as progressing through a fixed sequence of hierarchical stages. Each stage involves a different way of thinking. Greater cognitive differentiation and integration is required as persons advance to higher levels. As persons pass through different stages, their views of themselves and the world are expanded and become more complex.

Perry (1970) was one of the first to define the stages a person goes through in the career development process using a cognitive model. Knefelkamp and Slepitza (1976) revised and extended this model. Their revised model contains four categories and nine stages. The categories include dualism, multiplicity, relativism, and commitment within relativism and are described as follows:

1. *Dualism* is characterized by simplistic thinking and reliance on external factors to control decisions. Individuals lack the ability to analyze and synthesize information. Occupations are seen as being either right or wrong for them, with little understanding of the complexity that is actually involved.
2. *Multiplicity* occurs when individuals accept a decision-making process provided by a counselor. The locus of control is still outside individuals but they are beginning to analyze occupational factors in more detail. An awareness of the relationship between consideration of multiple factors and occupational decisions begins to develop.

3. *Relativism* occurs when the locus of control is shifted from an external reference point to an internal one. Individuals see themselves as being primarily responsible for the decision-making process and begin to use higher levels of processing to analyze occupations. Individuals are able to deal with the positive and negative aspects of many occupations and can see themselves in a variety of life roles, including the worker role.
4. *Commitment within relativism* occurs when individuals begin to realize that commitment to an occupation is not simply a narrowing of the old world, but also is an expansion into a new world. The self becomes more integrated with the environment. Career identity and self-identity become more closely related. Values, thoughts, and behaviors become more consistent with one another. Individuals can now deal with more challenges and changes.

Interactionism. Development is seen as the result of an interaction between persons and their environment. Individual maturity or readiness must be matched with environmental opportunity in order for growth to occur. Growth is produced when individuals are confronted by stimuli from the environment that their cognitive constructs cannot handle. This creates dissonance or disequilibrium. In order to reduce this tension, persons must change their cognitive structures to accommodate greater complexity. Too much dissonance can be overwhelming, however, and can prevent growth. Therefore, it is important that growth take place at a steady, gradual pace.

The following is a list of five cognitive intervention strategies that have been found to be effective.

- Guided career fantasy exploration. Individuals are asked to imagine a typical workday in different professions, what they would like to be doing at different periods in the future, what benefits they would enjoy in different jobs, and so forth.
- Rational emotive therapy. This strategy is aimed at eliminating the irrational ideas that prevent individuals from thinking and acting productively. As they develop more rational belief systems about themselves and their environments, they become better able to make appropriate career decisions.
- Elimination of dysfunctional cognitive schema. Effort is directed toward identifying and eliminating the following: drawing conclusions where evidence is lacking, making decisions on the basis of a single incident, exaggerating the negative or ignoring the positive aspects of a career event, overly self-attributing negative occupational occurrences, and perceiving career events only in extreme terms.
- Self-instruction techniques. Individuals are taught to talk to themselves about the processes that promote goal attainment. This may include such things as identification of goals, potential steps necessary to achieve goals, potential problems blocking progress, alternate solutions, and self-praise for each step that is accomplished.
- Cognitive self-control. Individuals are taught to promote career development by seeking relevant information, self-monitoring their own behavior, using self-reinforcement and self-punishment to develop appropriate behavior, and engaging in alternative activities that interfere with or eliminate undesired behavior.

Some implications of cognitive theory are as follows:

- Because counseling strategies are based on the current abilities individuals possess, identifying where individuals are in their developmental sequence is the first step in helping them advance to the next level.

- Because individuals cannot skip stages, but must instead advance one step at a time, a counseling strategy that is aimed at a level beyond individuals' next stage of development will be ineffective and may even be detrimental. If individuals do not have the cognitive complexity to understand and integrate the information that is presented, they will become frustrated and may become temporarily fixated at their current level. Counselors need to design strategies that will guide individuals through their developmental stages with as few disruptions as possible.
- Because the emphasis is on process rather than content, help individuals think in increasingly complex ways about themselves and their environments. Interact with individuals at their level and then provide enough cognitive dissonance to stimulate the expansion of their thought processes. This process is called *plus-one staging*. That is, individuals are helped to move from one stage to the next in a deliberate manner. Support and challenge is used to stimulate growth, and support is used to prevent overloading and to stimulate self-confidence.
- Because the cognitive approach to career development is based on the broader cognitive theories of counseling and therapy, apply techniques useful in cognitive therapy to career counseling (Keller et al., 1982).

Career Development Theories and Career Counseling

At this point you may be thinking, now that I have a beginning understanding of a number of career theories and some of their implications for practice, how does this help me do career counseling? how does it help me work with individuals who need help finding a job? how does it help me provide career exploration and decision-making assistance? how does it help me use career and labor market information more effectively with individuals?

To answer these and similar questions, several terms need to be defined, namely, *career counseling* and *labor market information*. Also, it is necessary to present a brief description of the career counseling process. This is necessary because such a description provides a structure through which you and your clients can surface, understand, and interpret client behavior and decide on appropriate interventions to assist them to solve their problems and reach their goals.

Career Counseling

According to the National Career Development Association (formerly the National Vocational Guidance Association—NVGA) (Sears, 1982) career counseling is "a one-to-one or small group relationship between a client and a counselor with the goal of helping the client(s) integrate and apply an understanding of self and the environment to make the most appropriate career decisions and adjustments" (p. 139).

Labor Market Information

Labor market information, although not having a commonly agreed-upon definition, is considered to be that body of knowledge that describes and interprets the demographic and socioeconomic activities related to labor market function (Center for Policy Research and Analysis, National Governors Association, 1985).

The Process of Career Counseling[1]

A number of writers have described what is involved in the career counseling process beginning with Parsons (1909) up to the present (Brooks, 1984; Crites, 1981; Kinnier & Krumboltz, 1984; Reardon, 1984; Rounds & Tinsley, 1984; and Super, 1983, 1984). Building on the work of these authors and others, an outline of the career counseling process follows that has two major phases and a number of subphases or elements.

1. Client goal or problem identification, clarification, and specification
   - A. Establishing a client-counselor relationship including client-counselor responsibilities
   - B. Gathering client self and environmental information to understand the client's goal or problem
     1. Who is the client?
        - a. How does the client view himself/herself, others, and his or her world?
        - b. What language does the client use to represent these views?
        - c. What themes does the client use to organize and direct his or her behavior based on these views?
     2. What are the client's current status and environment?
        - a. Client's life roles, settings, and events
        - b. Relationship to client's goal or problem
   - C. Understanding client self and environmental information by sorting, analyzing, and relating such information to client's goal or problem through the use of—
     1. Career development theories
     2. Counseling theories
     3. Classification systems
   - D. Drawing conclusions—making diagnoses

II. Client goal or problem resolution
   - A. Taking action with interventions selected based on diagnoses
     1. Counseling techniques
     2. Testing, personal styles analyses
     3. Career and labor market information
   - B. Developing an individual career plan
   - C. Evaluating the impact of the interventions used: Did they resolve the client's goal or problem?
     1. If goal or problem was not resolved, recycle.
     2. If goal or problem was resolved, close counseling relationship.

---

[1]Parts of this section of Chapter 1 were adapted from material in Gysbers, N.C. & Moore, E.J. (in press). *Career assessment and counseling: skills and techniques for practitioners.* Englewood Cliffs, NJ: Prentice-Hall. Chapter 7.

Keep in mind that these phases and elements may take place during one interview or may unfold over two or more interviews with clients. Also, keep in mind that while these phases and elements logically follow one another on paper, in actual practice they may not. There often is a back-and-forth flow to the process. Finally, please understand that not everyone who seeks help wants or needs to go through the full process of career counseling. Some may want only a little assistance, preferring instead to handle the remainder of the process alone.

Goal or Problem Identification, Clarification, and Specification

This phase of the career counseling process has four subphases or elements: establishing the client-counselor relationship and client-counselor responsibilities; gathering client self and environmental information; understanding client self and environmental information; and drawing conclusions (making diagnoses). Before these subphases or elements are discussed in detail, however, please note the use of the words *goal or problem*. Some clients seek help to improve the quality of their lives. No problems are present, but a goal of self-improvement is. At the same time, other clients are in difficulty, have problems, and need and want assistance to solve them. The point is that you start where your clients are. Do not assume there is a problem when none may exist. Some clients want information only, not counseling. On the other hand, other clients may ask for information initially but later may talk about a problem that is troubling them. There may be an initial testing time to see if it is safe to discuss a problem with you.

Sometimes, however, goal or problem identification is straightforward. A client wants information about jobs in the local labor market because the client wants to find a job that pays more. No feelings of anxiety, insecurity, or frustration are evident. At other times, problem or goal identification is more complex. The need for information about jobs may be mixed with emotional issues, issues relating to family pressures and personal concerns about self-worth. The focus is on both personal-emotional concerns and career concerns.

Establishing the client-counselor relationship. If there is any one concept that is generally agreed on in counseling literature, it is that a positive, productive relationship between client and counselor is a basic and necessary condition, if counseling is to be effective. Much has been written about the characteristics of such a relationship and the skills counselors need to bring it about, so time will not be spent here to discuss these characteristics and skills. It is important to remember, however, that listening and empathizing skills are especially important, as is the need to show clients that we are interested in them and their needs, concerns, and possibilities. It also is important to remember that once positive, productive relationships are established, they need to be nurtured throughout the duration of the career counseling process.

Finally, this is the time when the nature, structure, and possible results of career counseling are discussed with clients. What are the client's expectations? In what time frame is the client working? What can be expected realistically? What responsibility does the client have in the relationship? These and similar questions need to be raised and addressed so that you and your clients can reach a common understanding concerning the nature, structure, and expected results of career counseling.

Gathering client self and environmental information. At the same time that a relationship is being established, the task of gathering client self and environmental information begins. This is necessary to help understand the goal or problem the client wants to work on or for which the client is being referred. Kinnier and Krumboltz (1984) pointed out that although the ways this is done vary according to counselor style and theoretical orientation, the opening questions are similar. "Who are you?, What is troubling you?, Why have you decided to seek counseling now?, Tell

me more about yourself and what you want, and What do you want to gain from counseling?" (p. 308) are typical opening questions that all counselors ask in one form or another.

Concurrent with relationship development, the key processes of listening, understanding, and interpreting begin to unfold. This is important because whatever techniques you use in goal or problem identification, clarification, and specification, the ability to systematically gather, understand, and interpret information clients share and the behavior they exhibit is basic to the entire process. Listening skills are important, but more is involved. Listening must be done with understanding so that the information clients present and the behavior they exhibit during goal or problem identification, clarification, and specification can be analyzed and interpreted.

How is listening with understanding achieved? It is achieved through an in-depth knowledge of theories of human behavior and human growth and development which, in turn, provide the necessary language and constructs to explain the behavior exhibited by clients. It is achieved by drawing upon as many different theories of human behavior and human growth and development as possible.

Drawing conclusions: Making diagnoses. As you are gathering, understanding, and interpreting client information and behavior during career counseling, you begin to draw tentative conclusions about the meaning of such information and behavior. These tentative conclusions are called diagnoses. Conclusions or diagnoses made initially are not one-time labels applied for all time. They are, instead, hypotheses that you substantiate, modify, or discard as the career counseling process unfolds.

Crites (1981) suggested that there are three types of diagnoses that you may want to consider making: differential, dynamic, and decisional. *Differential diagnoses*, the first type, is the identification and categorization of client goals or problems. Categories such as undecided, indecisive, and incongruence are often used. Although differential diagnosis answers the question, *what* is the client's problem or goal?, *dynamic diagnosis*, the second type, focuses on *why*—on what is going on. The focus is on determining the causes or reasons for the client's problem or goal. For example, a client, differentially diagnosed as undecided, may lack information, whereas a client diagnosed as indecisive may have anxiety, self-doubts, and hold a number of irrational beliefs. In the latter case, the use of information alone as an intervention strategy may not be sufficient. In *decisional diagnosis*, the third type, attention turns to client's approaches to decision making. It focuses on understanding the processes/sequences clients use to arrive at choices. In this type of diagnosis, clients' use of (or lack of the use of) decision-making strategies is assessed.

Client Goal or Problem Resolution

Taking action. The reason for identifying, clarifying, and specifying clients' goals or problems is to find ways to resolve them through appropriate interventions. Once clients become aware of the nature of their goals or problems, the focus of career counseling turns to you, and your clients becoming actively involved in goal or problem solutions (Crites, 1981). Here the keys are the diagnoses or tentative conclusions reached as to the nature and structure of the goals or problems because the diagnoses made determine the choices of interventions that are to be used. Test data, personal information, career and labor market information, and a variety of counseling techniques all play a part in how and when problem or goal resolution occurs. For example, tests and their use in career counseling are an integral part of the process, not something separate. They aid in the process of self-understanding, and assist people in comparing themselves with people in occupations. Crites (1981) said it this way:

> It (test interpretation) provides the client with relevant information for making a specific career choice; it models decision skills and how they can be used in problem solving; and it contributes to better adjustment through greater self-understanding and resultant self-confidence in coping effectively. (p. 189)

In addition, providing career and labor market information can serve to instruct individuals about the realities of the work world and about themselves. Exposure to career and labor market information also can motivate individuals to explore new options because such information may open up new possibilities. Finally, career and labor market information can help individuals adjust by helping them develop a balance between their needs and wants and occupational supply and demand in the labor market.

Developing an individual career plan. When clients begin gathering and organizing information, it can become a vehicle for them to relate and apply the information they have gathered and organized to their career planning and decision making. They may find that by putting information together in certain ways and in certain categories, relationships become apparent that were not apparent before. Self-appraisal information and experience auditing and cataloging often can be translated directly into job-related knowledge, attitudes, and skills. When these relationships are seen and understood, client self-confidence and self-worth are often increased (Gysbers, 1983).

Evaluating the impact of interventions and closing the counseling relationship. During the goal or problem identification, clarification, and specification stage, you and your client determine what the client's goal or problem is. Then, during goal or problem resolution, a decision is made about appropriate interventions to attain the client's goal or alleviate the client's problem. The final phase of goal or problem resolution is assessing changes that may have occurred and evaluating the impact of the interventions used. One way to accomplish this is to have the client review and summarize what has taken place during the career counseling process. Then you can add your own review and summary.

During the summary, you and your client may find that there is some unfinished business. Your client may need more information or more time to consider and reflect on the information already available. As a result, you may recycle to the same interventions to allow more time for consideration and reflection, or you may try other interventions.

Also, during the summary, you may find that your client is unsure about whether or not he or she is ready to close the counseling relationship. If you sense this, then these possible feelings of insecurity need to be addressed. You may want to open up this topic by saying, "It seems as if we have achieved what we wanted to achieve during our time together. Sometimes when people reach this point, having made some of the changes you have made, they wonder if they are ready to handle new situations. Could it be that you feel this way?" If you sense this is the case with your client, then these feelings need to be addressed directly as a part of closing the career counseling process. Part of closing the process is working through any emotional investment associated with the career counseling relationship.

Using Career and Labor Market Information in Career Counseling

The next task in this chapter is to focus directly on how knowledge of career development theories and understanding of the career counseling process can help in using labor market information with counselees.

How Do Career Development Theories Help Us in Making Diagnoses?

Based on the discussion of career counseling, it should be evident that the answer to when and how you use career and labor market information (or any information) in career counseling begins with the diagnoses you make. Diagnoses are based on test and nontest data. Super's (1983) developmental assessment model expanded the traditional trait-factor assessment model by adding work salience and career maturity measurement to ascertain the readiness of individuals "to assess abilities and interests . . . [and] to make self and occupational matching decisions" (p. 559). Data are then analyzed in terms of the models of human behavior that best help you understand individuals' goals or problems.

For our purposes, we are using career development theories to understand human behavior. Hence, you analyze the data you have gathered through the lens of career development theory, searching for clues and ideas to help you and your client identify, clarify, and specify their goals and problems. Clues and ideas also are sought for goal or problem resolution. Such analyses require the use of as many models of human behavior as possible. Career development theories are important, but so are other theories of human behavior. For example, other specialties within the field, such as marriage and family counseling, have a great deal to say about career problem identification and career counseling techniques. (Zingaro, 1983).

The trait-oriented and cognitive theories are especially helpful in the diagnosis of career problems and concerns individuals may have. Trait-oriented theories are based on differential psychology. In fact, the concept of diagnosis as the differential classification of the characteristics of the career concerns and problems of individuals (Crites, 1981) arises from differential psychology. Diagnostic statements such as unrealistic (trait-factor) and incongruence (Holland's theory) are examples of differential diagnostic categories.

Cognitive theories have added the language of reflective judgment stages and the ways we process information to our diagnostic language. For example, a person might be differentially diagnosed as being in the category of dualism. This is substantially different than a diagnosis of a person being in the commitment within relativism category. The process of career counseling, the outcomes sought, and the methods used would be quite different.

Cognitive theories also are helpful with dynamic diagnosis. They help us understand, from a cognitive perspective, the underlying reasons for behavior. Lewis and Gilhousen (1981) illustrated this fact by suggesting that some career problems may have underlying irrational beliefs. For example, people who are differentially diagnosed as indecisive may be indecisive because of the irrational belief that they must be perfect. Because this is not possible, no action can be taken, and thus, these people may appear to be indecisive.

Socioeconomic, personality, and developmental theories are all helpful in making diagnoses. In particular, decision-making theories suggest possible frameworks by which to judge individuals' decision-making skills. Other theories provide ideas concerning what to look for in individuals' growth, development, and environment that will help in understanding the behavior people use to

discover their identity. For example, an understanding of an individual's family and its values will help us understand the value structure that underlies the individual's choices. This is particularly important as it relates to sex role stereotyping and occupational selection.

How Do Career Development Theories Help Us Carry Out the Process of Career Counseling?

During goal or problem identification, clarification, and specification, Crites (1981) suggests that "the client and counselor collaboratively identify the attitudes and behaviors in the career problem that are interfering with the decision-making process and together they survey the range of possible solutions" (p. 178). During this period, career theories can be helpful. For example, information about a person's background (where and how a person grew up) that comes from socioeconomic and developmental theories could be helpful. Suppose a person is diagnosed as being indecisive and anxious. During problem clarification and specification, it might be learned that the person wants to return to school but the person's children and spouse do not want that. In this case, the transition approach in the adult career development theory may prove helpful in clarifying and specifying the problem and in pointing toward a possible solution.

How Do Career Development Theories Help Us Reach the Expected Outcomes of Career Counseling?

Crites (1981) suggests that there are at least three major outcomes of career counseling—making a choice, acquiring decision-making skills, and enhancing general adjustment. The knowledge we gain from theories is helpful to us in dealing with each of these outcomes.

To enable you to help individuals make a career choice, trait-factor theory offers interest, aptitude, values, and career maturity assessment. Socioeconomic theory offers understanding about possible environmental pressures (parents, peers, spouses). Personality and developmental theories suggest possible patterns of previous behavior that may facilitate or hinder choice making. And finally, cognitive theories provide insight into how individuals process and use information in choice making.

Your ability to assist individuals in acquiring decision-making skills can be increased by the knowledge provided by career development theories. An obvious theory to turn to is the decision-making theory. It provides you with possible models to use. It outlines and explains the decision-making process so that you can use this knowledge with individuals. Some may need direct help in how to go about making decisions. Others may need help in how they process information as they make decisions. In such cases, cognitive theory provides some answers concerning how to work with the problems people may have in processing information.

The third outcome is general adjustment. Since work roles, work settings, and work-linked events play a substantial part in our lives, attention to job (work) adjustment is critical to overall general adjustment. A number of theories provide good insights into this issue. Holland's theory helps us understand the relationship between personality and work environments. His concept of congruence is an important one. Developmental theories also help us, particularly the concept of developmental tasks. Understanding of the tasks to be performed and how the person has performed them provides some insight into the nature of a person's adjustment. Obvious also is the concept of career maturity or for adults, career adaptability. Instruments are now available to help us obtain measures of career maturity and hence a notion of the general adjustment of individuals. Finally, there is decision-making theory. Tiedeman and O'Hara's model examines the processes that lead up to a choice as well as what happens once a person is on the job. They use such terms as *induction*, *reformation*, and *integration* to describe the phases workers may go through as they deal with job adjustment and advancement. The concept of role conflict is a useful construct to help explain and remedy job adjustment problems and issues.

A Sample Case

To illustrate the use of career and labor market information more specifically, let us suppose that you are working with a young adult male who has been employed as a bus driver for the past 2 years but now wants to make a career transition. Based on information gathered during the initial interview, you find that he is frustrated and not very happy about being a bus driver. Further discussion uncovers his interest in working with people in helping relationships, an interest he cannot fulfill in his present employment. You also find out that much of his leisure time is spent in a big brother program at a local family counseling center. You administer the Strong Campbell Interest Inventory and determine that his inventoried interests are similar to people in social services and that his Holland code is SEC or Social/Enterprising/Conventional. In checking the Holland code for bus driver you note that it is REI or Realistic/Enterprising/Investigative.

The first phase of career counseling focuses on diagnosis. In the case of the above client, the initial differential diagnosis could be incongruence. The client is a social type working in a realistic environment. Continuing with the use of Holland's theory, an explanation of the client's frustration and unhappiness on the job (the dynamic diagnosis) could be that as a social type in a realistic environment he does not have an outlet to do what he wants to do, and the environment does not provide much in the way of personal satisfaction. Finally, you find that he lacks skills in how to gather, analyze, and use career and labor market information. Thus, you decide he lacks some decision-making skills.

Based on your differential diagnosis of incongruence (a mismatch between personality and work environment), the frustration and discomfort that comes from being in an incongruent situation, and the lack of skills in locating, analyzing, and using career and labor market information, the next step is to make sure, through problem clarification and specification, that you are on target. If so, the third step is to move toward problem resolution.

There are a number of places to start in accessing available career and labor market information sources. Since the Holland codes have been introduced, they are an obvious beginning point. Based on *The Dictionary of Holland Occupational Codes* (Gottfredson, Holland, & Ogawa, 1982), the client's SEC code leads to a substantial number of occupations to explore. Remember, however, that the client lacks some skills in how to gather and use career and labor market information. Thus, you may need to provide assistance by helping the client to develop a structure to gather and use information. Career and labor market information need to be placed in the context of the overall relationship you have established with the individual. In Super's (1983) developmental assessment model, information is an integral part of career counseling. Using Super's model, there would be a joint review and discussion of information gained from test and nontest data. This would be followed by the revision or acceptance of this assessment.

For the case in question, assume there is initial acceptance of the diagnosis of incongruence and of the need to find a work environment more related to the client's personality. The role of career counseling in this situation would be to help the client focus on resolving his problem. Super (1983) suggested that as counselor and client move toward problem resolution, the resolution, as it emerges, be considered in light of the client's present stage and next stage of development, as well as the potential impact the resolution of the problem may have on all of the client's life roles. For example, what would an occupation change mean for the client at his life stage? If he were 25 years old, that might have a particular meaning. If, on the other hand, the client were 55 years old, then an occupational change might mean something else. Also, what impact will a change in his work role have on his other life roles? If the client is married and has a family, the impact of an occupational change might be more dramatic than if he were single.

Some Final Thoughts on Career Counseling

Career development theories stress the role of self-concept in career exploration and decision making. In making diagnoses of individual's problems and concerns, the diagnostic terminology should be person centered. Also, self-understanding in occupational terms (worker role) needs to be connected to the other life roles in which individuals are involved.

In assisting individuals, help them to expand the ways they can enter, explore, and understand the work world, and assist them to match their work-related needs to the options available in the labor market. Helping them to learn how to gather, analyze, and use labor market information is an important aspect of this process.

Remember, too, that there is no predetermined sequence to follow in the use of career and labor market information. The use of information initially may lead back to more information at a later time, only at a different or higher level of understanding. In fact, what will occur as you work with individuals is the development of higher levels of understanding as well as the development of new thought patterns because information was brought together in new ways. Through the use of information, individuals can learn who they are and the directions they can take. The self is developed as well as implemented through the use of information.

Suggested Activities

1. Write a two-page career autobiography summarizing factors that you view to have been significantly influential at each point in your life. Which career development theories seem to account best for your development? Why?

2. Prepare a brief outline of your career to this point, including all educational and work experience in your home as a child, in part-time and summer jobs, and in full-time positions. Then choose one of the following:

   a. Analyze the pattern of development on the basis of the formulations of Ginzberg and Associates, Super, or one of the adult career development theories.

   b. Discuss decision points on the basis of the formulations of Tiedeman and O'Hara.

   c. Discuss your present occupation or occupational goals in terms of Roe's formulations regarding early childhood experiences.

3. Write your own definition of career development through the life span, incorporating the concepts from this section; explain it to a group of your friends who are not counselors.

4. Talk to some experienced counselors about their theories of career development and how they put them to use.

5. Interview a young person, a middle-aged person, and an older person regarding a recent career transition they have made. Analyze it in terms of Schlossberg's model of career transition.

6. Select a case of your choice from chapter 5. Write a brief analysis of it in terms of the career counseling process. Pay particular attention to how career development theories helped explain (or did not help explain) the client's background, behavior, and goal or problem. Also, analyze the use of career and labor market information. How did theory help suggest when and how to use such information?

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CHAPTER II

UNDERSTANDING THE LABOR MARKET: CONCEPTS AND APPLICATIONS

CHAPTER GOALS

1. Develop an understanding of economic principles relevant to labor markets.
2. Develop an understanding of how the labor market operates.
3. Develop an understanding of basic concepts in economic theory.
4. Develop an understanding of how economic theory and labor market information can be used in career counseling.

HIGHLIGHTS*

- The Basic Model of the Labor Market
- The Supply Concept
- The Demand Concept
- Internal and External Labor Markets
- Primary and Secondary Labor Markets

*Note. Appendix G provides definitions that relate to many of the terms used in this chapter.

Introduction[1]

This chapter describes how the labor market works—a subject every counselor needs to understand in order to assist clients properly in career exploration. Numerous publications and information systems about the labor market provide specific information on occupations, industries, training institutions, and so forth. This information is readily available (although not always in usable form) and is updated periodically. It is important, however, for counselors to understand the underlying reasons for changes and the patterns of economic behavior of individuals and institutions. This understanding is also needed by workers as they contemplate career changes. Appendix E, "A Brief Introduction to the American Labor Movement," will provide a perspective on the historical tracings of the labor movement and its impact in this country.

Economics is both a descriptive and an analytical discipline. First, it is a description of economic life and how people behave with respect to making a living. The real science, however, is in its analytical method, which goes beyond mere description. The analytical system of economics is based on careful reasoning as to how people would behave if the following four assumptions were true: (1) people are rational in their behavior; (2) people seek the greatest benefit to themselves from their economic actions—whether the benefit is in tangible monetary returns or in utility; (3) people have perfect knowledge of the market and of the behavior of everyone else in the market; and (4) the market is competitive and free—no participants have overwhelming market power, such as monopolies. Building on these few assumptions, much as Euclid did in geometry, economists have erected an impressive structure of theory explaining wages, prices, interest, employment, unemployment, investment, international trade, depressions, and many other economic phenomena. The theories are constantly tested against experience—actual economic events as measured by statistics—to see how well they explain the real world, and on this basis the theories can be rejected or improved.

Readers who have studied psychology, history, anthropology, sociology, or other social sciences that see human behavior as sometimes responding to emotional motivations may be skeptical of the assumptions that behavior is completely rational, motivated by tangible personal gains or advantages, and based on omniscience about the behavior of other people.

In defense of economics and the reality of the assumptions on which it is based, one may make three points: (1) even if the assumptions are not true for all people at all times, it is possible that they are true, or close to true, for enough people that things generally work out in the way theory predicts; (2) modern economics recognizes and analyzes markets that are not entirely competitive; and (3) the testing of theory against actual experience tends to keep it close to reality.

The Basic Model of the Labor Market

Supply, demand, and wages are tied together in the general explanation of the labor market in the "neoclassical" economic theory. Under the assumptions just mentioned, the following can be said:

- The number of workers employers want to hire decreases as the wage rises. Demand may be thought of as following a curve: The quantity of labor demanded is low at high wages, but rises at low wages. (See line DD in Figure 2-1.)

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[1]Portions of this chapter are drawn from a summary of economic theories of labor markets in Moss, A. (1983) *An overview of labor market theories for career development and vocational counseling applications.* Mimeo. Washington, DC: Employment and Training Administration, U.S. Employment Service, U.S. Department of Labor.

- The number of workers willing to work for the employer increases as the wage rises. Supply may be thought of as following a curve that rises from left to right as the wage increases. (See line SS in Figure 2-1.).
- At the wage level where the number of workers demanded equals the supply (point P in Figure 2-1 where the demand and supply curves intersect), there will be no more workers seeking jobs at the wage and no more vacant jobs; the market will be *cleared*. Thus, the locations of the two curves and the point where they intersect determine the number employed and the wage level.

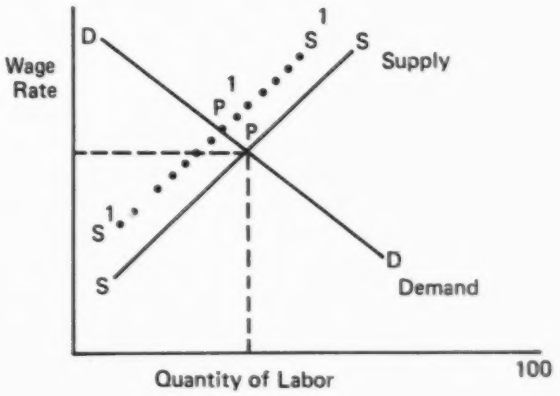

Figure 2-1. Supply and demand curves for labor for occupation "x."

The location of the demand curve—the number of workers the employer (or employers) wants to hire at each wage level—is determined by the amount added to the firm's revenue by selling the product of each additional worker employed. It is determined by the productivity of the marginal worker, the last worker to be hired. The shape of the demand curve is affected by changes in such factors as the price of the product—which in turn is determined by demand and supply in the market for that product—and the cost of raw materials, machinery, power, and other purchases needed for the business.

The supply curve's location—the number of workers willing to work at each wage level—is determined by such factors as the size of the working age population, the cost of living and supporting a family, the investment each worker has to make in education and training to acquire the skills needed for the work, nonmonetary advantages and disadvantages of the job (e.g., working conditions, occupational hazards), and the availability of alternative job opportunities.

Both the demand curve and the supply curve for each type of job change from time to time, as factors such as those listed in the two previous paragraphs change. This occurrence will be described more fully later.

This explanation of how the labor market works is useful to the basic understanding of the labor market; however, it is an oversimplification (Dunlop, 1984). Further complexities or modifications of the basic model will be discussed under the separate headings of "Modifications of the Supply Concept" and "Modifications of the Demand Concept."

In the public sector, Federal, state and local government and the Armed Forces—which provides one out of six jobs in the United States—the market does not operate to set wages or allocate workers among jobs, because the enterprises are not run to make a profit. Wages are determined in ways similar to those in the business firms that operate "internal labor markets," which are described in a later section on "Hiring Practices."

Modifications of the Supply Concept

Some major modifications to the simplified concept of supply take into account the fact that the supply of workers is not a mass of identical "units of labor" (the total number of hours of work workers can provide), as the workers are called in the more abstract economic writings, but rather a number of heterogeneous, differentiated groups of people. Workers differ, among other things, in their skills or occupations, in their geographic location, and in their personal and family characteristics, all of which affect their desire to work. Labor markets are thus segmented.

Skill Segmentation

The earliest economic writings simplified the labor supply concept by assuming that all workers were competing for all jobs, as would be true in a rural community where general farm labor was the only work available. In order to make theory realistic today, it is necessary to recognize that the labor market is segmented. That is, jobs differ; some—science, engineering, law, haircutting, typing, or carpentry—require special skills that cannot be quickly learned by just any worker hired. Cairnes (1874) recognized this more than 100 years ago.

Groups of jobs that require approximately the same body of skills are identified as *occupations*. The exact tasks performed and skills used are not always identical in all the jobs that fall into one occupation. However, they are similar enough so that a worker who can perform one job adequately can quickly learn to perform another job that is in the same occupation.

In a substantial proportion of all occupations—mostly those classified as professional, technical, managerial, and craft occupations, but including some classified in other occupation groups—the skills are acquired over a period of years by a combination of education, special training, and experience. A worker who has not had this preparation will not be hired for the occupation.

The following discussion applies to these skilled occupations and not to the great bulk of occupations in the United States. Because of the high level of general education in the population (more than 80% of our youth complete a high school education according to *Digest of Education Statistics*, 1982), the skills required for a majority of our occupations are learned quickly on the job, with the supervisor telling new workers what to do and then correcting workers' errors. Most workers can easily qualify for any of these jobs; thus, the labor market for them follows more closely the simplified model previously described.

The boundaries of the highly specialized occupations keep changing as the technology and organization of work changes. In engineering and medicine, for example, it becomes difficult for an individual to be familiar with all new discoveries and latest findings and to be able to perform jobs without additional training. So specializations arise and eventually become separate occupations with their own training programs.

The existence of separate labor markets for specialized occupations is reinforced by a variety of barriers that have been erected to keep unqualified workers out. These include licensure, registration or certification, apprenticeship, and union hiring halls.

Licensure is provided by law to protect public health or safety from being endangered by unqualified workers in such occupations as medicine, dentistry, pharmacy, electrical work, and plumbing (Shimberg, Esser, & Kruger, 1972). In additional occupations, the same effect in restricting the supply in the labor market is achieved by certification or registration of qualified workers—X-ray technicians, dietitians, occupational therapists, and other medical technician occupations—by professional organizations. In the skilled crafts, completion of a formal apprenticeship has served the same purpose; however, the controls are generally weaker, and employers are more likely to hire workers who have not completed an apprenticeship. Under collective bargaining agreements in the building and maritime trades, *employers are required* to fill vacancies through union hiring halls if union members are available.

The implications for counseling are that wages are likely to be higher and employment opportunities more protected in a licensed occupation or one controlled by registration, certification, apprenticeship, hiring halls, and other barriers to entering the supply in the labor market. This is illustrated in Figure 2-1 by the supply curve S^1-S^1 (the dotted line), which shows how licensing or other supply restrictions would reduce the number of workers attracted at each level of wages, as compared with supply curve S-S. As a result, supply would equal demand at point P^1 instead of point P; the wage would be higher, and the number employed would be less.

Geographic Segmentation

In most occupations, the geographical area in which employers recruit new workers is a commuting area around the workplace. The methods used to find workers—word-of-mouth publicizing of vacancies through their employees, posting of vacancies at the gate, notifying union hiring halls or state or private employment agencies, or placing want ads in newspapers—are focused locally. On the supply side the same is true; workers look for jobs within commuting distance from their homes.

Commuting distance is, of course, a flexible concept, depending on public transportation, roads, availability of automobiles or carpools, and willingness of workers to spend time in travel. Because of the importance of commuting distance in defining labor markets, most labor market analysis and statistics is done on the basis of labor market areas that represent basically commuting areas. The Federal government generally defines them as Metropolitan Statistical Areas (MSAs). MSAs are counties containing central cities with a population of 50,000 or more, or urbanized areas with a population of 50,000 or more. Additional counties are included in an MSA if they meet specified requirements of commuting to the central counties of the MSA and other criteria of population density and urban characteristics (U.S. Department of Commerce, January 3, 1980). At the time of the 1980 population census, there were 318 recognized MSAs, and they contained three-fourths of the U.S. population (U.S. Department of Commerce, 1981).

Although the labor markets for most occupations are confined to the MSAs within which workers live, this is not true for all occupations. Some—mainly professional and managerial—have national labor markets. Workers are recruited through professional organizations or personal contacts. They expect to move from city to city throughout their working lives, and they apply for jobs in distant places. This is made easier in the professional and managerial occupations because ties to hometowns are first broken when youths go off to college. The work history of

many engineers, scientists, managers, and college teachers includes jobs in cities all over the United States. Similarly, workers in occupations like structural iron work, where jobs end when the project is finished, find themselves having to move from one city to another.

Many young people become interested in occupations with no employment opportunities in their hometowns. A farm boy or girl from the Midwest may want to go to sea in the U.S. Navy or the merchant marine; a rural or small-town youth is interested in a career in music, the arts, finance, or other kinds of work for which the major centers are located in large cities. Counselors cannot assume that only locally employed occupations should be of interest, nor should the planning of curricula be based on that assumption.

Finally, when jobs are hard to get, workers in all occupations often seek employment far from home and must be prepared to move their families to these new locations. For example, in 1982-83, many workers who lost jobs in Michigan automobile plants or Ohio steel plants looked for work in Texas and California.

The implications of this discussion are as follows:

- Although labor markets are geographically segmented, this is less true for certain professional, managerial, and craft occupations, other occupations in which opportunities are centered in large cities, and in times when jobs are hard to get.
- Workers, in choosing an occupation, are also choosing a way of life that includes geographic stability for some, but a good deal of mobility for others.
- Counselors must keep alternative geographic patterns of the labor market in mind and be open-minded to clients' preferences for occupations not located locally.

Investment in Human Capital

We noted that the shape and location of the supply curve is affected by the cost of training necessary for the occupation. This element of labor supply has been intensively studied in recent years, following the work of Becker (1964).

Becker pointed out that education or training for work is like any other capital used in production—such as on machinery or buildings—in that it requires an investment (the cost of education) and that the payoff on this investment is over a period of years—in this case, the individual's work life. He argued that some of the same principles of investment must go into decisions made about investment in "human capital."

The question of investment first arises when a high school graduate considers whether to go to college or to work. He or she can earn money immediately, so the cost of investment in education includes not only tuition and living expenses, but also income given up for 4 or more years by not working full time. If the investment will not pay off in higher income over the 40 or more years of working life, he or she should rationally choose to go to work instead of college. Since the investment must be made immediately while the added income will flow in over a 40-year period, the calculations should "discount" the value of future income streams. Put another way, the cost of the investment, for comparison with future income, should include what that money would earn over a 40-year period, had it been invested in some other way—for example, put into a savings bank with compounding interest.

Needless to say, few people are technically able to make this calculation. Moreover, the uncertainties make it more difficult. How much more will a college graduate earn than a high school graduate over the next 40 years? Will the differential remain unchanged? What interest rate should be used in the calculations? (This latter question is especially difficult to answer in view of recent wide fluctuations in interest rates.)

Another application of the human capital theory is in the decisions employers make concerning the training of their employees. About 1 out of 8 workers in the United States is given formal training by employers each year. Most of this training occurs within the workplace, but some occurs in colleges or other schools, in professional organizations, or in other outside institutions (Carnevale & Goldstein, 1983). The training may be such that it is useful only in the employer's organization (specific training), or it may be useful in other companies or organizations as well (general training). The employer has to be concerned that a worker who has received general training may quit and move to another job, which would mean a loss to the employer who paid for the training. Becker argues that the rational employer will not pay for general training but that the worker ends up paying for it through reduced wages. Specific training, on the other hand, will be at the expense of the employer.

Practical difficulties in applying this theory include the difficulty one may have in identifying many training courses as either specific or general and the employer's difficulty in finding a way to pay those employees who are given general training less than those who are given specific training.

Nevertheless, the human capital theory broadens our understanding of the relation of education and training to earnings and how they affect the supply of workers in an occupation, by identifying a minimum level below which wages cannot go without drying up the supply. It also shows the importance of turnover in the work force in relation to both training and wages.

The previous discussion may help the counselor to understand problems a client may have in making a decision about education or training. The counselor will also want to help the client to consider the benefits of education or training in relation to the costs involved.

Backward-sloping Supply Curves

Nothing sets the teeth of a noneconomist on edge more than a jargon expression like *backward-sloping supply curve*. Yet, this significant modification of the basic supply curve represents an easily understood observation and is familiar to everyone who has worked or thought about working.

As stated previously, the standard supply curve shows that the number of workers (or units of labor) who will become available to employers increases as the wage increases. Many plant managers, on the other hand, have observed that the opposite is sometimes true—after increasing with the wage, beyond a certain point, the quantity of workers (or units of labor) begins to decrease. Workers who used to work 6 days a week find they can support themselves with 5 days' work at the higher wage, so they call in sick on Monday, or fail to show up on Saturday. The reason for this is that a worker is limited by 24 hours a day and 7 days a week that has to be allocated to work, sleep, family, and leisure activities.

At low levels of wages, workers are willing to do more work for more pay in order to substitute for leisure the things they can buy with higher wages; working hours increase as wages rise.

This is called the "substitution effect" in economic terminology. However, when wages and working hours reach a high enough point and income is adequate to meet needs, the leisure hours become more valuable than the additional income that would be earned by more work at higher wage rates; working hours, therefore, decline. This is called the "income effect." The supply curve, which had been rising from left to right as wages rose, reaches a maximum point and starts to turn backward—hence the expression, backward-sloping supply curve (see Figure 2-2).

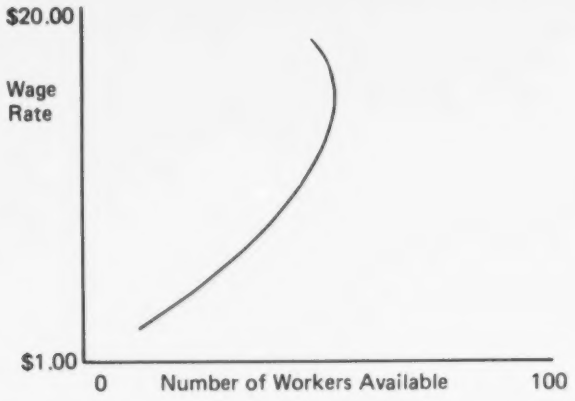

Figure 2-2. Backward-sloping supply curve.

Workers have a fair degree of choice as to their working hours. In 1984, for example, nearly half of all workers were on full-time schedules of 35 to 40 hours a week, but 1 out of 7 voluntarily worked part-time (two-thirds of them women), and 1 out of 4 worked more than 40 hours—many worked more than 60 hours (U.S. Department of Labor, 1985).

The backward-sloping supply curve may apply more to the *hours each worker* is willing to work than it does to the *total number of workers* in the supply. Thinking in terms of the latter, as wages *in a single occupation* increase, workers from other occupations should continue to be attracted, and youth and adult workers should continue to be induced to train for the occupation. If wages *generally* increase, more people are drawn into the labor force, particularly women. A point may be reached where total family incomes are so high that families decide that the secondary earner should stay home to spend the income. However, a 40-hour week rarely takes so much of a person's time that spending is precluded. It is only at the point where labor reserves among nonworkers are exhausted and working hours have become very long that the factors inducing the individual worker to prefer leisure to more work at higher wages begin to affect the total supply of all workers.

Effects of the Business Cycle on Labor Supply

We noted that one of the factors affecting the supply curve is the availability of other jobs. That is, in prosperous times, when jobs are easy to get, the number of workers willing to work in a particular occupation at a given wage is less than when times are hard and this is the only job available.

There has been a long-standing dispute among economists about the way in which the business cycle affects the proportion of the population that is interested in working, or the labor force participation rate. On the one hand, during bad times there is a tendency for additional family members—housewives and youths—to try to get jobs when the principal wage earners in the family lose their jobs, in order to keep family income up. This explanation is known as the "additional worker hypothesis." On the other hand, when jobs are hard to get, some people who want to work stop looking because they think the search is hopeless. Because the labor force is defined as those employed plus those not employed but actively seeking work, the number of people in the labor force drops when a worker becomes discouraged and stops looking for work. This is known as the "discouraged worker hypothesis." Note that in neither of these hypotheses is the labor supply related to the wage level.

The above discussions of both the backward-sloping supply curve and the two hypotheses as to the labor force participation of additional family members in the course of the business cycle tend to illuminate some of the issues that arise, particularly in counseling women workers.

Mobility

There is a considerable amount of movement of workers among occupations. This fact is true for those many occupations that have no special training, educational, or experience requirements for entry, but it is also true of the smaller group of occupations that do have limitations to entry. This is partly because of the high general level of education in the work force. About 1 out of 4 young people finish 4 years of college education today (National Center for Education Statistics, 1982, p. 16), and most college graduates have minor as well as major course concentrations, which could help to qualify them for a number of occupations.

As a result of these factors, surveys show that there is a great deal of mobility among occupations (Sommers & Eck, 1977). This means that the supply of workers in most occupations—even those requiring high qualifications—is flexible, and, if wages rise, people can be drawn from other occupations as we noted in discussing the backward-sloping supply curve.

The implications of this discussion for counseling are many. One is that people are constantly leaving one occupation for another occupation as well as retiring from the labor force, so that many jobs open up each year even in occupations that are not growing. In most occupations, openings to replace those people leaving are more numerous than openings required to provide growth. Growth is not the only indication of employment opportunity. In general, there will be more openings each year in large occupations than in small ones, as a result of the constant need to replace those people leaving. Thus, *the size of an occupation is an important indicator of the employment opportunities it offers.*

Another implication is that the individual should keep his or her options open to change jobs to adjust to life circumstances. The broader one's education and training, the greater the opportunity for changing occupations. Also, workers should not assume that jobs are closed to those people who do not have the preferred qualifications and experience. A little exploration will often show that a worker is qualified, or partly qualified, and can get the job with additional education or training. Workers need to develop skills in getting around in the labor market.

Modifications of the Demand Concept

A firm's demand curve for workers in a specific occupation is influenced by the amount of business the firm has, the technology of the productive process, and the firm's hiring practices.

Business Volume and Markets

The number of workers desired by the firm at various wage levels is affected by the amount of business the firm expects to do. If demand for its product is expected to increase, the firm will want to hire more of each kind of worker needed in its business. The demand curve shows that the firm would hire more workers if the wages were lower, but when business is increasing, the firm would hire more workers to increase production and profits, and wages would not necessarily be reduced. This means that the demand curve has shifted. Instead of 100 workers to be hired at a wage of $8 per hour, it now wants, for example, 120 workers at about the same wage.

Shifts in the demand curves of firms occur frequently. In the long run, the population and the labor force are growing, and the markets for most products are expanding. Not all product markets expand, however, since new inventions, changing consumer tastes, and changing prices sometimes reduce the demand for a product. Some industries decline even when the economy is growing.

The future of employment opportunities in the various occupations depends partly on the growth in demand for the products or services that workers in the occupation provide. (As noted in the discussion of the supply of labor, the replacement of workers who retire or move to other occupations is the other major factor in opening up jobs.)

In the short run, the volume of business also changes. In business cycles, as the economy alternates between boom and depression, the demand for the products of each industry fluctuates. Some industries have wider fluctuations than others. In general, durable goods manufacturing—machinery, automobiles, and metal products (and construction, the purchase of whose products can be postponed if money is short)—are the industries with the biggest ups and downs. Trade, nondurable manufacturing (food, clothing, and so forth), services, and public utilities are relatively stable in the business cycle.

Other changes in demand are associated with foreign trade, that is, gains in business volume from expanding exports and losses from expanding imports, such as the automobile, steel, and television set manufacturers have experienced in recent years.

All of these changes—long-term economic growth or decline, business cycles, and foreign trade developments—continuously shift the demand curves for all occupations and often create unemployment situations. Unemployment can also result from factors other than shifting demand curves accompanied by drops in demand. Three important factors in addition to deficient demand include the following:

1. Structural unemployment. Sometimes an imbalance exists between the kinds of workers needed and the kinds of people looking for work. When a computer manufacturer is hiring new employees, unemployed steel mill workers may not qualify because the skills they have are not those needed in the computer industry. Or, jobs may become available in Texas while the unemployed are living in Cleveland. These failures of matching arise from changes in the structure of the economy—shifts in demand from one industry to another or from one city to another. Unemployment that exists because of these structural changes has been called *structural unemployment*. It is most evident when there are at the same time many unemployed workers in an area and many unfilled jobs as shown by long columns of help-wanted ads in the newspapers.
2. Frictional unemployment. It simply takes time for a worker to find a job. Workers must find places where they can apply for work; they must file applications; and they must wait for the results. It is the rare worker who gets a job immediately; more often it takes

weeks. Unemployment associated with the delay in finding a job and getting hired is known as *frictional unemployment*, an expression alluding to the friction that slows down any machine. It has been estimated that approximately 2% of the work force is unemployed at any one time because of the time it takes to get a job. However, much also depends on the efficiency of the labor market placement institutions.

3. Seasonal unemployment. There are seasonal fluctuations in business in certain industries. Construction, farming, and other outdoor work are slow in the winter. Retail stores have a big pre-Christmas season and then lay off the temporary workers they have hired. The apparel industries have lulls after their big rushes to get clothing into the stores for the spring and fall seasons. The automobile industry lays off workers during its annual model changeover in the late summer. Thus, workers in these industries have regular periods of *seasonal unemployment* which often last for weeks or months.

It is sometimes difficult to know just which of the four causes of unemployment—deficient demand, structural imbalances, frictional and seasonal factors—is responsible for a particular worker's unemployment. A company about to go out of business in a small city, thus creating structural unemployment, may close down more quickly if business is generally bad as a result of a general depression. Similarly, frictional unemployment rises during a depression because it takes longer to get a job.

It is important to recognize and distinguish between the four types of unemployment because the measures that must be taken to deal with them are different. *Unemployment resulting from lack of demand*—the business cycle, or imports, or declining industries—has to be dealt with by stimulating demand. There are a number of possible strategies to maintain or stimulate demand to counter a depression. Some are built into the normal operations of government. Unemployment insurance, for example, maintains the purchasing power of workers who lose their jobs, and if governments maintain their services and purchases even though their tax receipts fall off, this has the effect of maintaining demand. Special policies may be adopted, such as expanding the money supply carefully, increasing government expenditures more than taxes so that there is a net increase in demand, launching large public works programs, creating government jobs (public service employment), or blocking or limiting imports while at the same time hoping that foreign countries will continue to buy from us. But, if such measures are taken when most of the unemployment is *structural*, the increase in demand will soon exhaust the unemployed who have the needed skills and employers will have no choice but to offer higher wages and hope they can attract skilled workers away from other employers. Higher wages would raise production costs and prices and create inflation without reducing unemployment.

Similarly, *structural unemployment* can be reduced by setting up training programs for the unemployed to help them get the skills they need. If, however, this is done at a time when most unemployment is not structural in origin, but results from *lack of demand*, there would be no jobs for the newly trained workers and they would still be unemployed.

Frictional unemployment can be helped by making the labor market mechanisms more efficient, such as by introducing computerized job banks as was done in the public employment services during the 1970s. This, too, would be of little use if most unemployment were from *lack of demand* or *structural imbalances*. The job banks would have few jobs to show, and, in cases where there were job openings, there would be no qualified workers to be placed.

Also, trying to smooth out seasonal fluctuations in business to reduce *seasonal unemployment* would do little good if most of the unemployment resulted from the other causes.

It is important for the counselor to understand the current employment situation in various occupations so that clients can be advised as to whether an unemployment situation is temporary because of slow demand as a result of a recession, or whether it is likely to continue for a long time, whether it is endemic in the occupation because the industry is seasonal, or whether it results from an increase in imports that is likely to continue to affect the industry even after the rest of the economy improves. The counselor should be familiar with the economic problems of major industries in the community, so that these facts can be interpreted for clients.

Technology of the Production Process

The numbers and kinds of workers each firm needs are determined in part by the technology it uses. Obviously, a steel mill employs workers in different occupations than does a pizza parlor. This applies to the numbers of workers in the various occupations as well as to the occupations themselves. For example, an insurance company and an automobile factory both use many clerical workers, but clerical workers form a higher proportion of the insurance company's staff simply because production workers are the bulk of employees in the automobile factory.

Each industry has its typical occupational composition pattern, which reflects the technology it uses. The pattern may differ somewhat from one establishment to another if the machinery or process used is different, or if the plant is small or large, or if the supply of various occupations in the communities where the plants are located is significantly different. For example, if all-round machinists are scarce in a community and their wages are high, a plant may substitute less-skilled workers who can operate a single machine tool. The limit to how far such substitution can go depends on the industry and its technology.

Occupational composition patterns may also change over time as the technology or the structure of the industry changes. For example, fewer weavers are used in modern textile mills than are used in older textile mills. This is because the machinery rarely breaks down or requires attention and because one weaver can tend many looms. Computer operators and programmers are substituted for clerical workers. As fast-food restaurants become more common, unskilled workers will be substituted for the skilled chefs and waiters that are employed in the traditional restaurants.

The changing occupational composition patterns of each industry mean that the number of jobs available at given wages for each occupation are constantly changing. This must be taken into account when attempting to estimate the occupational employment outlook.

Hiring Practices: External and Internal Labor Markets

The number of jobs available is also affected by the way in which the firm hires its workers. Some firms fill jobs at all levels by hiring from the outside, or the "external" labor market. Others, particularly large organizations, maintain "internal labor markets," in which the company hires new workers from the outside only in certain entry jobs (or "ports of entry"), whereas all other jobs are filled by promotion. Training is provided so that workers can advance within the organization (Doeringer & Piore, 1971; Kerr 1954). The railroad, steel, and petroleum refining industries are major examples of industries that operate internal labor markets.

A worker in an internal labor market makes his or her whole career within the company. In many such organizations promotions are controlled by formal procedures such as posting of

vacancies, bidding for jobs, and considering seniority in promotion and layoffs. Formal procedures are typical in plants where practices are governed by collective-bargaining agreements but are also followed in some nonunion plants. Also, no company maintains a purely internal labor market. In a steel company, for example, the major internal labor market comprises the blue-collar production workers and foremen; however, engineers, accountants, typists, and other office workers are hired from the outside in the general labor markets for those occupations.

One reason why internal labor markets are created by company policy or union agreements is that the industry depends a great deal on informal, on-the-job training in which a new worker is taught by supervisors or fellow workers. Workers are often unwilling to teach a new worker the skills they have learned, for fear that once a young and strong worker acquires the skill, he or she may become more productive than older workers and may displace them. Acquiring a skill by watching and learning from experienced workers has been called "stealing the job." To encourage older workers to train new workers, the company has to give them assurance that their jobs are protected. Thus, a structured, protected internal labor market with rules and due process is developed.

One reason for the protected environment is that unions insist on it. Their experience has been that too many employers try to weaken unions by discriminating against active union members and officers in promotion, layoffs, rehiring, and job assignments. To protect the active members they depend upon for their organizational success, unions have insisted that personnel actions be based on objective standards such as seniority and that workers be protected against capricious actions by supervisors. (See Appendix E, "A Brief Introduction to the American Labor Movement.")

We noted earlier that large organizations are more likely to have internal labor markets. Most workers are employed in large firms or organizations. Forty-two percent of all employees in private firms were in organizations of 1,000 employees or more in 1977, and, when government agencies are considered, the number of employees in large organizations comprises more than half of all workers. But, 40% of all employees in private firms were in organizations of less than 100 employees, where internal labor markets are not common (U.S. Department of Commerce, 1979, Table 2). As we noted previously, the labor market in the public sector, comprising one-sixth of all jobs, has characteristics similar to those of internal labor markets.

Whether or not the organization maintains an internal labor market is not only a matter of its size; it also depends on the kinds of workers employed. An example of large organizations that depend mostly on hiring from the outside and offer relatively little upward mobility is hospitals. Hospitals hire their specialized workers—nurses, pharmacists, physicians, X-ray technicians, physical therapists, medical records librarians, and so forth—from outside. There is virtually no promotion among these occupations within the organization.

One result of having an internal labor market is that occupational wage rates are not set by the free market as in the basic supply/demand model. In this case, a method has to be devised to set wage rates for the hierarchy of occupations employed. This method has to provide rates that are perceived as fair and will motivate workers to acquire skills and work hard for promotions. One such method is "job evaluation" in which the various factors that people consider important in determining a fair wage structure are scored for each occupation and the relative wage rates are determined by each occupation's total score. Among the factors considered are the level of skill required by the occupation, the level of responsibility, use of expensive equipment, and hazards or discomfort in working conditions. In this way, a wage rate structure is developed for all the occupations in the internal labor market.

The counselor will recognize some of the implications of the distinction between internal and external labor markets for clients. A worker wishing to get into a top occupation in an industry with an internal labor market—locomotive engineer or roller in a steel mill—must be prepared to enter in a low-skilled and relatively low-paying job and advance by promotion and training. On the other hand, those workers interested in occupations for which labor markets are mainly external, including most occupations for which training is given in schools and colleges, can build their careers by being prepared to change employers and by developing contacts with others in their occupations through unions or professional associations.

Primary and Secondary Labor Markets

In addition to the distinction between internal and external labor markets, another form of market segmentation has been identified in the concept of "primary" and "secondary" labor markets. There appear to be two distinct labor markets functioning in each community: a "primary market" with high paying jobs, good working conditions, advancement and training opportunities, employment stability, and a measure of equity and due process in the administration of personnel matters; and a "secondary market" with low-paying jobs, high turnover, no security, limited promotion or training opportunities, and capricious or arbitrary personnel practices (Piore, 1972).

The primary labor markets include the preferred jobs, those in large or stable firms. An example of the secondary market can be noted the way in which construction laborers are employed in many cities. That is, employers send trucks around to certain street locations each morning to pick up men for laborer jobs. Even large firms may have secondary market jobs, such as the temporary shopping season jobs in department stores. Many disadvantaged and minority workers, workers with prison records or physical or mental disabilities, or school dropouts have access only to the secondary market. A work history of nothing but secondary market jobs makes it hard to gain entrance into the primary market, so workers often become trapped in the secondary market.

Counselors should help minority and disadvantaged workers get into primary market jobs early and take advantage of training, promotion, and job security. In the 1960s and 1970s, government-sponsored training programs, which favored admittance of "disadvantaged" or long-term unemployed workers, were created in an attempt to break the pattern of entrapment in the secondary market.

The Creation of New Jobs

New jobs and new occupations are created by social, economic, and technological changes. Growth of the population increases both the demand for products and services and the supply of workers available for jobs. Social changes such as more women entering the work force create demand for child care workers, labor-saving appliances in the home, and restaurant workers. Technological changes such as the introduction of the computer create demand for people who build or use the new equipment. Four of the five fastest-growing occupations between now and 1995 will be computer occupations (Silvestri, Lukasiewicz, & Einstein, 1983).

These changes not only create demand, but sometimes also reduce demand for other occupations. There has been a recurrent fear that the technology which substitutes machines for human workers—automation, robotics, and so forth—will in turn create unemployment. Technological innovation has destroyed jobs for workers first in one industry then in another over the past 2 centuries, with severe hardships for the workers affected. Yet, the number of people with jobs has

grown. This process of job creation in the midst of job destruction works in several ways. First, when new labor-saving technology comes in, reducing production costs, the price of the product goes down and consumers buy more, creating jobs for more workers. Higher output per worker makes higher wages possible. The lower production costs and prices make it possible for American industry to compete in world markets. Second, jobs are created in making the new machinery—in different industries, requiring different and often higher skills. When jobs at higher skills are created, this tends to raise average wages. Third, as incomes rise, consumers spend more on such products and services as travel, entertainment, education, medical care, and sporting and recreational goods, thus creating jobs in new industries. Unfortunately, the jobs created are often in different skills or locations than the jobs destroyed. Those who lost their jobs may go without work for years. This is especially hard on older workers who are less able to adapt.

In the final analysis, technological innovation destroys some jobs but creates different jobs and helps to explain the growth of service-producing activities such as finance, trade, hotels, schools, hospitals, entertainment, and recreation. In the 1920s, service industries provided fewer jobs than goods-producing industries such as farming, mining, construction, and manufacturing. Today, service industries provide jobs for twice as many workers as the goods-producing industries. This does not mean that the goods-producing industries are dying out. They had more workers than ever before in 1980, with further increases expected over the next 15 years (Silvestri, Lukasiewicz, & Einstein, 1983).

Workers can create their own jobs by going into business for themselves. This requires an occupational skill, business or entrepreneurial skills, capital to invest or the ability to borrow it, and willingness to take responsibility and risk. One out of every 12 employed people was self-employed in 1982. Thus, going into business for one's self is an option open to many clients. Retail trade, service businesses, and construction and professional services are the main fields for self-employment.

Summary

This review of the way labor markets work began with a simple description of how supply, demand, and wages interact with each other to account for the number of workers employed at any time and their wage rate. We then described some of the major refinements and modifications of this model that have been developed by economists over the years to give greater understanding of the market's complexities and the many submarkets or segmented markets that exist, such as markets for each occupation and in each geographic area, internal and external markets, and primary and secondary markets. We discussed such concepts as human capital, general and specific training, occupational composition patterns, and backward-sloping supply curves, and we identified four principal causes of unemployment: (1) deficient demand, (2) structural imbalances in the labor market, (3) friction in the job-seeking/placement/hiring system, and (4) seasonal fluctuations in employment. Finally, we discussed how new jobs are created, the effects of technological change on jobs, and the opportunities to create a job for one's self by going into business or professional practice.

This is but a brief introduction to a complex field. With additional reading and experience, the counselor should be able to add to his or her understanding of the labor market. The information for your state or community may be found in the censuses of population, in employment and earnings statistics compiled by the state employment security agency, in wage statistics compiled

by the Bureau of Labor Statistics or some state agencies, in business statistics from the U.S. Department of Commerce or agencies or universities in the state, and many other sources. Fortunately for the counselor, information from all these sources has been compiled and selected for relevancy to counseling by experts in central agencies in most states. These agencies may be the research and analysis branches of the state employment security agencies, state occupational information coordinating committees, state universities, or other central data delivery systems set up to bring together and interpret data for use in counseling situations.

Suggested Activities

Consider the following questions:

1. A client is thinking about taking a 6-month course in computer programming that would cost $6,000. How would you help him or her to decide whether or not to go ahead with this idea?
2. A young client who presently is earning $93 a day as a construction laborer is thinking about taking training as a keypunch operator because he/she has heard there is future potential in high-tech fields. What factors should he/she consider before making a decision to do this?
3. A client has an opportunity to be admitted to an apprenticeship as a printing press operator but has heard that many press operators are unemployed in the community. What are some of the factors he or she should take into account before making a decision?
4. The director of vocational schools in your state is considering whether to introduce a training program for practical nurses or for medical record technicians. What information would you advise the director to obtain that might help in making a decision?
5. A client whose spouse works in a Midwest paper company is considering whether to become a soil conservationist or a biology teacher. What factors should he or she consider while contemplating these career choices?
6. Draw a diagram of hypothetical supply and demand curves for an occupation and use it to analyze the changes that would take place in wages and employment if:
   a. A technological innovation were introduced that raised the productivity of each worker.
   b. An increase in supply resulted from an increase in the number of workers being trained.
   c. Imports of the product, at lower prices, increased.
   d. Workers were taken out of the labor market by an increase in the number engaged in military service.
7. Look at the "help wanted" listings in the classified advertising section of your local newspaper to see what occupations firms are hiring from the outside—the "external labor market." Can you identify the major occupations existing in the area that are *not* listed and may be filled from within the firms—the "internal labor market"?

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CHAPTER III

EXPLORING LABOR MARKET INFORMATION SOURCES AND SYSTEMS

CHAPTER GOALS

1. Present background information on where Federal and state labor market information originates.
2. Develop an understanding of the operation of a career information delivery system.
3. Present background information on the various classification systems.
4. Develop an understanding of the concept of a crosswalk between sources of information.

HIGHLIGHTS

- Major Federal Sources
- Major State Sources
- Career Information Delivery Systems
- Nongovernmental Sources
- Classification Systems and Crosswalk

Introduction

As you read your favorite magazine or newspaper, you may have wondered how the wealth of job market statistics are developed. Many popular magazines such as *Time* and *Newsweek* often carry articles that explore the job outlook in the country as a whole, in a particular region (e.g., the Sun Belt), in a specific industry (e.g., aircraft), or in one occupation (e.g., aerospace engineers). A week rarely goes by that the newspapers do not carry a story or two about the current status or future prospects of a local factory or business enterprise.

The intent of this chapter is to provide background information on the major sources of this information—at both the Federal and state levels. It also will explain the development and purposes of the career information delivery system found in many of the states and will touch briefly on several of the primary nongovernmental sources of labor market information.

Lastly, the chapter will introduce the concept of *classification* of labor market information, the most important classification systems, the concept of *crosswalk*, and the most important crosswalk system.

Major Federal Sources

The primary source of labor market information is the United States Department of Labor. Within the Department, the Bureau of Labor Statistics (BLS) and the Employment and Training Administration (ETA) play the most active roles in developing and compiling information. National labor market information (LMI) is developed by the Department of Labor based on these sources. In addition to the Federal Department of Labor, several other departments produce both career and labor market information. For example, the Departments of Commerce, Defense, and Education, and the Executive Office of the President produce a number of the publications used by counselors.

Most state, regional, and local LMI is compiled by the state employment security agencies (SESAs) research and analysis units through statistical programs operated in cooperation with agencies in the U.S. Department of Labor. Under these programs, the states collect or develop and analyze employment and unemployment data, earnings and benefits, prices and the cost of living, labor force projections, and occupational outlook.

Another important Federal agency that provides guidance to states in the systematic development of labor market, occupational, and career information is the National Occupational Information Coordinating Committee (NOICC). NOICC provides funds and assistance for the various State Occupational Information Coordinating Committees (SOICCs), and facilitates coordination among agencies that produce or use occupational and career information or LMI at the national and state levels. The agencies involved with NOICC are the Bureau of Labor Statistics and the Employment and Training Administration in the Labor Department; the National Center for Education Statistics, the Office of Vocational and Adult Education, the Rehabilitation Services Administration and the Office of Bilingual Education and Minority Language Affairs in the Department of Education; and one agency within each of the Departments of Commerce, Agriculture, and Defense.

Table 3-1 summarizes the major sources of labor market information and the resources these agencies provide. The 18 resources noted will be explored in depth in chapter 4.

Table 3-1
Majcr Federal Sources and Resources of Labor Market Information (LMI)

Sources—Agencies That Produce LMI	Resources—Products of the Agency
Commerce, U.S. Department of	
Bureau of the Census, International Trade Administration	*U.S. Industrial Outlook* (current edition)
Bureau of the Census	*U.S. Census of Population, 1980: Alphabetical Index of Occupations and Industries*
	U.S. Census of Population, 1980: Classified Index of Industries and Occupations
Office of Federal Statistical Policy and Standards (now defunct)	*Standard Occupational Classification Manual*
Defense, U.S. Department of	
Manpower, Installations and Logistics	*Military Career Guide: Employment and Training Opportunities in the Military*
	Military Occupational and Training Data
Education, U.S. Department of	
National Center for Education Statistics	*A Classification of Instructional Programs*
Executive Office of the President	
Office of Management and Budget	*Standard Industrial Classification Manual*
Labor, U.S. Department of	
Bureau of Labor Statistics	*Occupational Outlook Handbook*
	Occupational Outlook Quarterly
	Occupational Projections and Training Data
	OES Survey Operations Manual
	OES Dictionary of Occupations
Employment and Training Administration	*Dictionary of Occupational Titles*
	Dictionary of Occupational Titles: Fourth Edition Supplement, 1982
	Guide for Occupational Exploration
	Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles
National Occupational Information Coordinating Committee	*Vocational Preparation and Occupations*

Major State Sources

As noted above, the various SESAs produce many of the labor market information resources. For example, cooperative statistical programs and other data sources form the basis for the series of LMI publications developed by state agencies. It should be noted that not all LMI products are available in every state. Users should check with their SOICCs and the Research and Analysis units in their SESAs to learn what products are available. Generally, however, according to the U.S. Department of Labor (1981), each state may likely provide the following types of publications:

- Annual planning information. Prepared for the state as a whole, for all governmental units that receive government funds, and for all metropolitan statistical areas (MSAs). Includes historical, current, and projected information on employment, unemployment, occupational trends, and the size and characteristics of the general population, the labor force, the unemployed, the economically disadvantaged, and special target groups. Issued annually.
- LMI newsletters. Prepared for the state and all MSAs. Provide information on current employment and unemployment, with comparison figures for the previous month and year on the distribution of employment, hours, earnings, and turnover by industry, and on economic and industrial developments. Issued monthly.
- Occupational LMI. Prepared for the state and MSAs. Includes information on the characteristics of occupations and jobs, current and projected labor supply and demand by occupation, and wages or salaries and fringe benefits for various occupations. This category also takes in job search materials that furnish information designed to help job seekers find work. Issued periodically.
- Special worker group publications. Provide data on youth, women, veterans, and/or selected minority or other special groups. Identification of the special worker group and the geographical areas covered is determined by state needs and priorities.
- Affirmative action information. Prepared for the state and sometimes for individual localities, counties, and MSAs. Provides federal contractors and subcontractors with information required for affirmative action. Contains statistics on women and minorities in the work force and in the general population. Issued periodically.
- LMI research publications. Present results of research projects on a variety of subjects. Examples of topics covered are worker commuting patterns, labor demands resulting from new energy sources, and the impact of projected increases in military spending in an area.
- Directory of labor market information. Serves as a catalogue for SESA reports, publications, releases, studies, and analyses. Updated as needed.

In addition, SOICCs play a major role in the development and dissemination of labor market information. The SOICCs are comprised of representatives of state employment security agencies, state vocational education agencies, employment and training coordinating councils, rehabilitation authorities, and economic development agencies. Also, as a result of the Carl D. Perkins Vocational Education Act of 1984 (P.L. 98-524), the SOICCs now include a representative of the economic development agency in each state. The SOICC's mandate is to develop and implement an Occupational Information System (OIS) for use in planning vocational education and jobs training programs and for use in career information delivery systems. Each state, the District of Columbia, and the territories have a SOICC.

In a nutshell, an OIS is a state network for the systematic delivery of occupationally related information necessary for program planning; it is a collection and organization of available information from various agencies for the purpose of synthesizing that information into a product and/or service. There is no prescribed manner in which the information is made available. An OIS might range from an information clearinghouse with annual reports to a comprehensive, computer-based information system.

Career Information Delivery Systems

As part of the state's role as a provider of labor market information, several have developed formal statewide delivery systems or career information delivery systems (CIDS). The following brief discussion provides background information on the development of these state systems. The section begins with a brief review of events leading up to the technological advances of the 1970s and 1980s, followed by a short summary of the evolution of the state systems growing out of initial support from the U.S. Department of Labor and later the National Occupation Information Coordinating Committee. An overview of the status of the state CIDS and their services is provided, along with a brief look into the future for these systems. For further information, see McDaniels (1982) from which this section is adapted.

The Development of Career Information Delivery Systems

In the post-World War II period of the 1950s, increasingly sophisticated forms of occupational and educational information developed. During this time, significant new equipment and technology emerged that was applicable to the field of vocational guidance. The events of this era were paced by the following four major events:

Expanded role of commercial publishers. The quality and quantity of commercially published print materials increased dramatically between 1950 and 1980. Not only did three large firms—Science Research Associates, Chronicle Guidance Publications, and Careers—offer regular subscribers' services, a number of other publishers led by Richards Rosen Press, Vocational Guidance Manuals, and Julian Messner began to produce new and timely hardcover and soft-cover books applicable for all ages. Professional direction to this burgeoning print field came from the National Vocational Guidance Association's (NVGA) Criteria for the Development and Evaluation of Occupational Information. No longer was there a shortage of sources of information, but rather a question of which sources to use.

Expanded role of media. With the passage of the national Defense Education Act in 1958, funds for school guidance programs became more readily available. With available funding, a host of film, filmstrip, audiotape, and videotape companies began to emerge, thus providing a significant option to the traditional methods of print and personal experience. In addition to some straightforward economic information, some media producers developed affective-type materials that dealt with the way people feel about their work, as well as materials that dealt with age, sex, and racial stereotyping in certain occupations. Again, NVGA assumed responsibility and developed standards for the creation and evaluation of nonprint occupational media.

Expanded role of technology. Expanded technology is probably the most visible of the several changes that occurred from 1950 to 1980. Gerstein and Hoover (1967) pioneered an important development using microfiche to deliver occupational-educational information. Their microfiche system developed nationally under the banner of Vital Information for Education and Work (VIEW). The application of computer technology to occupational information has been the most notable technological contribution. The most constructive professional work was done by

Tiedeman (1979) at Harvard, Harris-Bowlsbey and Rayman (1976) in the Midwest, Katz and Statkin (1980) at Educational Testing Service, and McKinlay (1979) in Oregon. National commercial computerized career information systems are available today on both mainframe computers and microcomputers. Other creative media contributions have emerged, such as career information hotlines, key-sorts, card-sorts, and light-tables. Collectively, the new technology for delivering career information constituted a major new direction for the field.

Expanded role of career information. A subtle shift has occurred toward the use of the term *career* information rather than occupational, vocational, or educational. The word *career* has an all-encompassing, comprehensive, and more life-span-oriented meaning. *Career* does not have the limitations of older notions; it combines the best of all concepts into a broadly acceptable modern term.

A National Policy for Better Career Information

Perhaps the separate events described above would have come together into some type of loose policy confederation without Federal assistance. Nevertheless, the process was aided by Federal direction. The U.S. Department of Labor began a program of support for better career information by funding the work of McKinlay of the University of Oregon in the early 1970s. As a result of this grant, the Oregon Career Information System (OCIS) emerged. Computerized delivery of information was central to this effort. The Oregon approach was the model for grants provided to states by the U.S. Department of Labor as outlined by Stern (1975). The states that received these grants in early 1976 were Alabama, Colorado, Massachusetts, Michigan, Minnesota, Ohio, Washington, and Wisconsin. They were selected by the degree to which they promised to establish comprehensive statewide systems. They also were funded over a 4-year period, after which they were expected to be state and locally funded. The state projects as outlined by the U.S. Department of Labor (1978) moved along well.

The grants to the eight states served as the prototype for legislation passed in the Federal Educational Amendments of 1976 creating the National Occupation Information Coordinating Committee. At the national level, policy formulation is currently provided by representatives of nine Federal agencies. While NOICC has performed an important coordinating Federal role, the heart of the new effort is in the State Occupational Information Coordinating Committees. Here is where the real action is taking place these days—in the states. State agency heads are obligated to form coordinating committees made up of representatives of the state board of vocational education, state employment security agency, state employment and training council, the state agency administering the vocational rehabilitation program, and the state economic development agency. Some SOICCs have also expanded their membership to include other state agencies. In addition to coordinating state agency efforts, the SOICCs are charged with developing two systems:

- An OIS charged with assimilating all the available occupational statistics, such as supply and demand data trends and information for educational and training program planners, legislators, and others.
- A CIDS charged with providing current, accurate, and relevant occupational information to all possible users in a state.

The Educational Amendments of 1976 also authorized the Educational Information Centers (EIC) program. The EIC authorization outlined studies of the status of educational information in each of the states followed by improvement of available information. A new emphasis was placed on all types of admission, financial aid, counseling, and other such types of information. In most states, the SOICC and the EICs have blended their efforts to serve all users in their area.

Over the last decade, the national policy for better career information has been defined. States and territories of the United States are putting together a solid base of career information for users all over the nation. Even though this is a national policy, the action is in the states. For a more detailed description of this historic policy direction, see Flanders (1980).

Statewide CIDS

State career information delivery systems (CIDS) were started primarily through a series of grants from the U.S. Department of Labor. Nine states were funded in the mid-1970s to develop systems to deliver occupational, career and labor market information in accordance with Department of Labor standards. NOICC assumed responsibility for the program in 1979 and funded 21 more programs through SOICCs. State CIDS have several common features. They operate through a combination of state agencies and local users. They usually provide a multimedia delivery system of information, contain a self-assessment component for career exploration, and contain occupational and educational descriptions based on existing data. They are meant to serve all age groups in each state.

The goal is to have a positive influence on the process by which people select occupations by providing current, accurate, and locally relevant occupational, career, and labor market information. The availability of such information should help individuals make smoother transitions at key points during their working lives, such as the transition from school to work or return to the labor force.

Most CIDS contain descriptive materials on specific occupations, information on training and other requirements, wage and salary data, and related economic information. To the extent that labor market data permit, information is localized in CIDS. The number and kinds of occupations delivered by a CIDS—which range from 250 to over 1,000—reflect the occupational structure of the labor market area and state served. In addition, information is updated at least annually.

It should be noted that career information systems also have been developed commercially. Various programs can be found in schools, colleges, or local employment agencies in virtually every state. The systems typically include the major occupational characteristics; however, they do not consistently present information on earnings and employment opportunities. The information on occupations is national in scope and usually is based on the *Dictionary of Occupational Titles*, *Occupational Outlook Handbook*, and the Military Occupational and Training Data Tape.

The specific objectives of the CIDS include the following:

- Help students and clients learn about the range of career opportunities presently available and those that are likely to be available in the future
- Help entrants to the labor force become aware of occupations they would find satisfying
- Encourage people to seek out vocational information on their own
- Help people learn about educational and training opportunities available for occupations that interest them
- Support related programs, including career education, career and employment counseling, employment and training, and educational planning

The state CIDS share several common characteristics. Among them are the following:

- They deliver national, state, and local career information to users.
- They use, to the maximum extent possible, the pertinent data available through the Occupational Information System.
- They sort and select occupations according to variables identified by the client.
- They serve users in a wide variety of settings—for example, secondary schools, postsecondary institutions, libraries, job service officers, Job Training Partnership Act facilities, vocational rehabilitation centers throughout the state.

Status. Of the 41 state CIDS, all but 1 offered state-specific occupational and educational information in 1985. Military files and national or local educational information also are provided in most systems.

Most states use a combination of delivery modes for this information. The primary delivery modes are the on-line computer, microcomputer, printed material, needlesort, microfiche, and a toll-free hotline. The trend appears to be to retain the on-line computer and expand market penetration by using microcomputers. The number of state CIDS sites—almost 13,000 in 1985—is expected to increase dramatically because of the proliferation of microcomputers in school systems and agencies. In 1985, 31 state systems offered microcomputer delivery. The number of users is estimated at 5 million at these 13,000 sites.

Microcomputers are being used in several ways, for example: (1) storing the search strategy on a floppy diskette and using it to search the total data base maintained on the on-line computer, needlesort, or microfiche; (2) using more than one floppy diskette to store the occupational data base as well as the search strategy; (3) using microcomputers as terminals for an on-line system; and (4) incorporating the use of hard disc technology to expand storage capacity.

The accompanying tables (3-2, 3-3, and 3-4) indicate 1984 CIDS information. The information is furnished by the NOICC Administrative Report No. 10, October 1984.

Table 3-2
States with Statewide Systems by Year Service Began

1971	1974	1976	1977	1978	1979
Oklahoma [a]	Iowa	Colorado	Alabama	Nebraska	Alaska
Oregon	Missouri [b]	Minnesota	Michigan	Ohio	District of Columbia
South Dakota [b]	Washington	New Mexico			Florida
		Wisconsin			Georgia
					Hawaii
					Idaho
					New York
1980	1981	1982	1983	1984	North Carolina
					Oklahoma [a]
Arizona	Connecticut	Arkansas	American Samoa	Guam	South Carolina
Kansas	Delaware	Louisiana	Kentucky	Rhode Island	Wyoming
Maine	Illinois	Texas	New Jersey		
Virginia	Indiana	West Virginia	Puerto Rico		
	Maryland		Utah		
	Montana				
	North Dakota				
	Vermont				

[a] Statewide Vital Information for Education and Work (VIEW) System introduced in 1971; computer-based system introduced in 1979

[b] Statewide VIEW System

Table 3-3
Organizational Location of CIDS[a] Operation, 1984

Department of Labor or Employment Security	Department of Education or Vocational Education	State Occupational Information Coordinating Committees	College/University	Private Nonprofit
Arkansas	Arizona	Alabama	Georgia	Indiana
Hawaii	Colorado	Alaska	Guam	Maryland
Oklahoma [b]	Florida	American Samoa	Kansas	Washington
	Iowa	Connecticut	Montana	
	Louisiana	Delaware	Nebraska	
	Michigan	District of Columbia	Oregon	
	Minnesota	Idaho	Virginia	
	Missouri	Illinois	Wisconsin	
	New Mexico	Kentucky	Wyoming	
	North Carolina	Maine		
	Ohio	New Jersey		
	Oklahoma [b]	New York		
	South Dakota	North Dakota		
		Puerto Rico		
		Rhode Island		
		South Carolina		
		Texas		
		Utah		
		Vermont		
		West Virginia		
3	13	20	9	3

[a] Career information delivery systems

[b] Computer-based system in Employment Security; VIEW system in Education agency

Table 3-4
Career Information Delivery Systems Information Files/Means of Delivery

	State/Local Files																					National Files												Means of Delivery							
STATES	Descriptions	Wages/Salaries	Outlook	Public 2-Year Coll.	Public 4-Year Coll.	Private Schools	Voc/Tech Schools	Graduate Schools	Apprenticeships	Programs of Study	School Subjects	Employers	Job Bank	Military	Economic Develop.	Planners	Bibliography	Character/Descrip.	Wages/Salaries	Outlook	Public 2-Year Coll.	Public 4-Year Coll.	Private Schools	Voc/Tech Schools	Graduate Schools	Apprenticeships	Programs of Study	School Subjects	Military	Bibliography	Time-Share Comp.	Microcomp (Full Del.)	" (Search + Books)	" (Search + Fiche)	Needlesort + Books	Needlesort + Fiche	Booklet + Books	Booklet + Fiche
Alabama	•	•	•	•	•	•	•						•	•				•			•	•	•	•					•	•								
Alaska	•	•	•	•	•	•	•	•		•	•	•		•			•				•	•	•							•							
American Samoa		•		•							•							•	•	•	•	•	•	•	•	•	•	•	•					•			
Arizona	•	•	•	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•		•			•	•		•						
Arkansas	•	•	•	•	•	•	•	•	•	•	•	•						•	•	•	•	•	•										•				•
Colorado	•			•		•	•	•	•	•	•	•		•			•	•			•	•		•	•				•	•	•						
Connecticut							•		•	•		•	•			•	•	•	•	•	•	•			•				•	•	•						
Delaware	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•														•						
D.C.	•	•	•										•	•				•	•	•	•	•	•		•			•	•	•	•						
Florida	•	•	•	•	•	•	•	•	•	•		•	•																		•	•					•
Georgia	•	•	•	•	•	•	•	•	•	•	•			•			•	•	•	•		•	•		•				•	•	•		•				
Hawaii	•	•	•	•	•	•	•	•	•	•	•	•	•								•	•	•					•		•	•		•				
Idaho	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•												•	•			•				
Illinois	•	•	•	•	•	•	•	•	•	•	•	•		•			•	•	•	•	•	•	•		•		•		•	•	•			•			•	
Indiana		•					•														•	•								•	•							
Iowa	•	•	•	•	•	•	•	•	•	•	•			•			•													•	•			•	•			
Kansas	•	•	•	•	•	•	•	•	•		•	•		•			•	•	•	•											•							
Louisiana	•	•	•	•	•	•	•	•	•	•	•							•	•	•	•	•	•		•	•	•	•	•		•	•						
Maine	•	•	•	•	•		•	•					•					•	•	•	•	•			•				•		•	•						
Maryland	•	•	•	•	•	•	•		•	•	•	•						•	•	•	•	•	•	•	•	•	•	•	•		•		•					
Michigan	•	•	•	•	•	•	•		•	•	•			•				•	•	•						•		•	•		•		•				•	
Minnesota	•	•	•	•	•	•	•	•	•	•	•										•			•							•	•			•	•		
Montana	•	•	•	•	•	•	•	•	•	•	•							•	•	•							•		•	•		•			•	•		
Nebraska	•	•	•	•	•	•	•	•	•	•	•			•				•	•	•												•	•			•	•		
New Jersey	•	•	•	•	•	•	•				•	•	•					•	•	•	•	•								•								
New Mexico		•	•	•	•		•	•						•				•	•	•	•	•			•				•	•								
North Carolina	•	•	•	•	•	•	•	•										•		•												•						
North Dakota	•	•	•	•	•	•		•	•	•	•							•	•	•	•	•	•	•	•	•	•	•	•									
Ohio	•	•	•			•	•			•	•							•	•	•	•	•	•		•				•		•							
Oklahoma	•	•	•	•	•	•	•				•							•	•	•	•	•	•		•				•		•			•				
Oregon	•	•	•	•	•	•	•	•	•	•	•							•		•		•	•		•		•		•	•	•			•				
Puerto Rico	•	•	•	•	•	•	•	•	•	•	•																			•		•						
Rhode Island	•	•	•	•	•	•	•	•		•	•							•	•	•	•	•	•		•			•	•		•							
South Carolina		•	•	•	•	•	•	•		•			•					•	•	•	•	•	•	•		•	•	•	•									
Tennessee	•			•	•	•	•	•						•		•															•		•						
Utah	•	•	•	•	•	•	•	•	•	•		•						•	•	•	•	•		•	•	•	•		•		•					•		
Vermont	•	•		•	•	•							•					•	•	•	•	•	•		•	•			•									
Virginia	•	•	•	•	•	•	•	•	•	•	•			•				•	•	•													•					•
Washington	•	•	•	•	•	•	•	•	•	•	•			•		•	•														•		•		•	•	•	•
Wisconsin	•	•	•	•	•	•	•	•		•	•						•	•	•	•	•	•	•	•			•	•		•	•	•			•	•		
Wyoming	•	•	•	•	•	•	•			•	•						•														•		•			•			

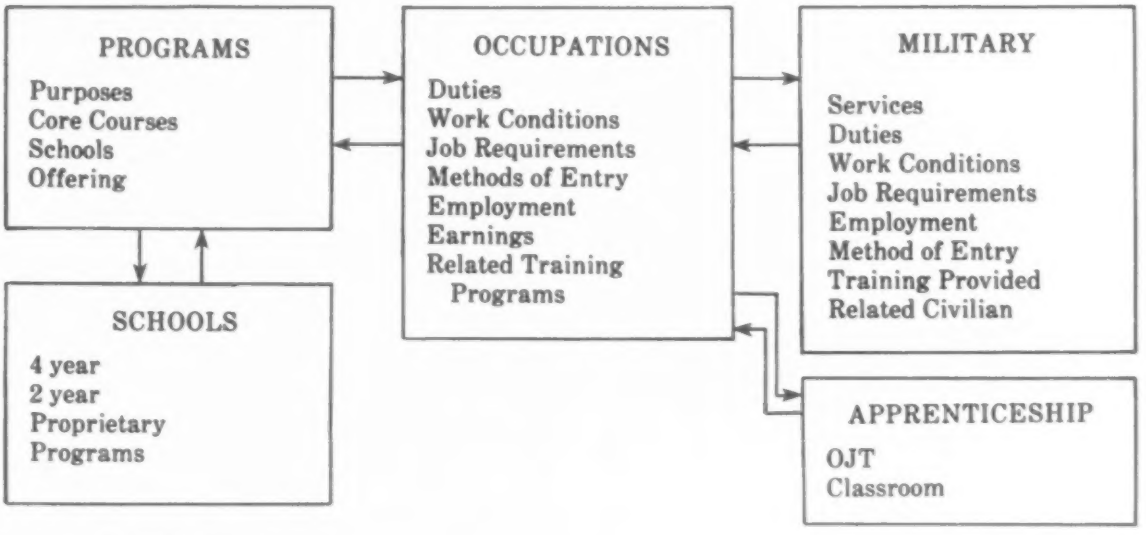
Table 3-5
Career Information Delivery Systems Estimated Number of Users by Type of Site 1984

STATES	Secondary Schools	Vocational-Techs/ Community Jr. Colleges	Public 4 - Year Colleges	Private Schools	Employment Security Offices	Employment and Training Centers	Vocational Rehabilitation Agencies	Correctional Institutions	Libraries/ Resource Centers	Business and Industry	Counseling Agencies	Other	TOTAL NUMBER USERS
Alabama													30000
Alaska	3050	2300	400	250	900	1500	1100	1500	650	1150	2000	3000	17800
American Samoa	1500	1000	500				100					100	3200
Arizona	94000	30000	7000		100	200	500	300	500		300		132900
Arkansas													250000
Colorado	152250	8750	3500			5250			875			4375	175000
Connecticut	100000	16000	6000									37000	159000
Delaware													
D.C.													
Florida	25800	11600	5200				4400	1000				800	48800
Georgia	37520	3350	5350	400	1100	2000	7900	1235	200		335	600	59990
Guam													
Hawaii	62600	13000	5200	200	5600	6000	2200		400		800	1400	97400
Idaho	21828	2350	3720		75	150		432		150	420	200	29325
Illinois	7990	12506	970			970	9000						31436
Indiana	64000	9200	3500	2500	100	600	600		4000		50	400	84950
Iowa	260063	42492	66832	41304	115000	1250	11000	200	45000			4800	587941
Kansas	98770		2380	5950			15470				595	595	123760
Kentucky													
Louisiana	62327	25155	30073	1240								500	119295
Maine	30000	500	2000			500	100	100					33200
Maryland													
Michigan													
Minnesota	63000	2600	2000			1400	100						69100
Missouri													
Montana													
Nebraska	55200	1700	500					200					57600
New Jersey	30800	2500											33300
New Mexico	24800		500										25300
New York													
North Carolina	105000		500										105500
North Dakota													
Ohio													
Oklahoma (GIS)													
Oklahoma(VIEW)													
Oregon													
Puerto Rico		2000	700	450	1200	23000	150					2200	29700
Rhode Island													
South Carolina													
South Dakota													
Texas													
Utah													
Vermont	5000	6451			1500		100	527		25	75	500	14178
Virginia	379000	70000	131000	5700	3600	3500	5700	6000			116000		720500
Washington	77450	50288	2200	920		13600	11000	200			5000	2200	162858
West Virginia	200	300	150		50								700
Wisconsin	151000	21200	25000	5500	8700	1200						32000	244600
Wyoming													14000
TOTAL	1913148	335242	305175	64414	137925	61120	69420	11694	51625	1325	125575	90670	3461333

Note. Tables 3-2, 3-3, and 3-4 from National Occupational Information Coordinating Committee. (1984, October). Status of career information delivery systems. NOICC *Administrative Report,* 10. Washington, DC: Author.

The following is a brief summary of the CIDS program:

- File structure (example)



- Search/access

  Direct—by title in any file

  Structured—by coded variables associated with each record

- Users (40-45 states)

High Schools	Employment Service
2 + 4 Year Colleges	Vocational Rehabilitation
CETA/JTPA	Corrections
Business/Industry	Libraries

Total User Sites—13,000 (1985)

Total Users—approximately 5 million (1985)

Future projections. In view of the current status of the majority of state systems, they not only should survive in the 1980s but also should actually show considerable growth. Technology is making possible the delivery of career information in a highly efficient, cost-effective way to diverse population groups. Technological advances coupled with a rapidly increasing computer sophistication on the part of CIDS staffs and the public should foster growth. In particular, the increasing proliferation of microcomputers in the schools should enhance the growth of state systems.

Educators, state legislators, and the public currently see the need for accurate, relevant occupational information that can be disseminated in a timely, efficient manner. The state systems are meeting this need.

Nongovernmental Sources

In addition to public agencies, several private organizations have developed and disseminated specific studies of labor markets. For example, the U.S. Chamber of Commerce for the past several years has published the results of employee benefits studies conducted by the Chamber's Survey Research Center. The report, for example, normally includes information on industry-by-industry payments for pensions, insurance, vacations, holidays, sick leave, and employee benefits. The 22 tables and 4 charts of the report present trends of benefit costs for a group of 186 companies that have responded to the survey since 1959.

A number of commercial firms also have been involved in generating various types of labor market information. For example, the following four commercially developed models (called econometric models) have long-term relevance to occupational demand:

- Chase Econometric Associates, Inc. (CEAI). CEAI's Long-Term Interindustry Forecast provides an analysis of major indicators affecting industrial activity. The indicators include gross national product, income, consumption, employment, housing, business investment, government spending and monetary policy, labor costs, and productivity. Forecasts by individual industries appear in several categories including employment.
- Data Resources Inc. (DRI). DRI's State and Area Forecasting Service is an econometric forecasting system of the dimensions of all 50 state, 9 regional, and selected MSA economies. It provides analysts with a set of economic relationships specified at the state and regional level.
- The Merrill Lynch Economics Model. This model is based on industry input/output analysis using Federal Reserve Board and U.S. Department of Commerce data. Industrial economic activity is produced including employment, weekly hours, and total person hours.
- Wharton Econometric Forecasting Associates, Inc. (WEFA). The WEFA Annual and Industry Long-Term Forecasting Service uses modeling techniques with input/output methodology to produce detailed industry forecasts of the national economy for a period of 10 or more years. Industrial forecasts are produced for employment, growth rates for employment, average weekly hours of employment, and growth rates of hours of employment.

Lastly, although it is not actually a producer of labor market information, the American Federation of Labor-Congress of Industrial Organizations (AFL-CIO) has played a major role in the dissemination of LMI. For example, the "AFL-CIO Economic Program for Jobs and Fairness" (AFL-CIO, 1983) looks at many aspects of labor market information. A related background report focuses on a jobs and stimulus program with which all career and vocational counselors may want to be familiar.

Classification Systems and Crosswalk

In addition to the primary sources of labor market information, counselors must be familiar with the major *classification* systems of LMI as well as the related concept of *crosswalk*. Both are briefly discussed below.

Meaning of the Term *Classification*

The concept of classification means the categorization, grouping, and coding of like things. In the field of labor market information, the concept refers primarily—but not solely—to industries, occupations, and instructional programs.

In understanding the concept of classification of LMI, it is necessary to distinguish between the following terms:

- Occupation. An occupation is a group of similar jobs found in various organizations; it is made up of the tasks people perform in the workplace. Examples of occupations within the industries are carpenter (in construction), assembler (in manufacturing), and airline pilot (in transportation).
- Industry. Industry categories classify work by the goods or services produced. Three examples of industries are construction, manufacturing, and transportation.

In addition, LMI classification includes the concept of *instructional program*, which is defined as follows:

> One or more structured learning experiences designed to accomplish a predetermined objective or set of allied objectives, such as preparation for advanced study, qualification for an occupation or range of occupations, or solely to increase knowledge or understanding. (Malitz, 1981, p. 3)

The Most Important Classification Systems

The primary reason that various classification systems have developed is simply that government agencies are created with their own administrative functions at different times. When they need to collect data, they have designed their approach in order to meet their unique program needs.

While the three types of classifications cited above are most common in labor market information usage, a number of other approaches have been identified (Hatt, 1962). For example, some of the other classifications Hatt identified are as follows: by socioeconomic groups, by ability or aptitudes, by interests, by field and level, by income, and by type of work.

One of the most well-known formulations resulted from the career education movement in the 1970s, which identified the following 15 career clusters: business and office, marketing and distribution, communications and media, construction, manufacturing, transportation, agribusiness and natural resources, marine science, environmental control, public service, health, hospitality and recreation, personal services, fine arts and humanities, and consumer and homemaking education. (Within each cluster, a hierarchy of occupations ranges from professional to unskilled.)

Because our focus is on the LMI *resources* most commonly used by counselors, the emphasis here will be on the following three types of classifications: by occupation, by industry, and by instructional programs.

Classification by occupation. The most common type of LMI classification system is occupational classification. A single industry usually includes many different occupations. Valuable information about approximately 35,000 occupations in today's world of work can be best presented through the *Standard Occupational Classification* (SOC) and the *Dictionary of Occupational Titles* (DOT) classification systems.

Classification by industry. Industrial classification systems help both the counselor and client become acquainted with the world of work. Typically, a client selects a vocation through study of broad fields of occupations. However, the client also may select a career by first choosing an industry that interests him or her. For example, Norris, Hatch, Engelkes, and Winborn (1979) pointed out that in a one-industry community, the potential worker may feel limited to the jobs available within this industry. A knowledge of industry classification systems will help clients broaden their horizons. It also will help the counselor understand industrial outlook information in both manufacturing and nonmanufacturing industries. Furthermore, it can be helpful in interpreting local opportunities. We will be looking at one major industrial classification system, namely, the *Standard Industrial Classification* (SIC).

Classification by instructional program. According to recent data, there are in the United States over 3,100 colleges and universities, over 7,600 noncollegiate schools offering occupational programs, and over 15,000 elementary and secondary school districts. Most of these institutions have labeled their programs using terms that identify them in ways best serving their management needs. Although the institutional program classification system that we will be exploring is intended primarily for Federal and state accounting needs as well as for institutional self-study, the system is important in "crosswalking" purposes. Hence, it is of great relevance to counselors. (We will turn to that concept shortly.) The classification system that we will explore here is the *Classification of Instructional Programs* (CIP) of the National Center for Education Statistics in the U.S. Department of Education.

In addition to these major classification systems, we also will be reviewing resources from other classification approaches, namely, the Occupational Employment Statistics (OES) program of U.S. Department of Labor and the Census program of the U.S. Department of Commerce. The U.S. Department of Defense has incorporated the classification systems of the military services into a resource titled Military Occupational and Training Data. Let us first, however, briefly review certain specific products related to the Federal classification systems.

Federal classification systems. Many of the Federal systems of classifying career, labor market, and occupational information evolved in the development of products and information required to respond to legislative mandates and agency needs. The *Dictionary of Occupational Titles* (DOT), the *Guide for Occupational Exploration* (GOE), the *Standard Occupational Classification* (SOC), the *Standard Industrial Classification* (SIC), and the *Classification of Instructional Programs* (CIP) are among the major Federal classification systems.

- The Dictionary of Occupational Titles. The DOT classifies numerous details about the kind, level, and environment of the work performed. Published by the Employment and Training Administration of the U.S. Department of Labor, the DOT is one of the most widely known LMI resources. The fourth edition, published in 1977, contains almost 20,000 occupational titles and more than 12,000 occupational definitions. The text organizes jobs into occupations according to their similarities and defines the structures and contents of the occupations. These definitions are based on analyses of the duties and tasks of similar jobs across the country. Each occupation is incorporated into a classification structure in which jobs are given nine-digit code numbers that primarily reflect the level of difficulty of work performed.

The major portion of the DOT consists of the lists and descriptions of the occupations. However, unlike language dictionaries, which consist of alphabetical listings, the DOT lists the occupations numerically by the nine-digit coding system. This occupational code yields a wealth of information about the occupation.

The DOT can be a valuable tool for counselors, particularly because it is so comprehensive. No other LMI resource exists that even begins to approach the number of occupations contained in the DOT. Because the DOT is organized by occupational groups, it is an excellent means for obtaining information about related jobs. The middle three digits also provide an immediate summary of the worker's relationship to data, people, and things. In addition, because the DOT lists the industries in which an occupation is found, it is useful in assisting unemployed skilled workers to find similar jobs in different industries. The list of related jobs at the end of the occupational definition serves the same function.

- Guide for Occupational Exploration (GOE). According to its authors, the GOE is designed to aid clients see themselves realistically in regard to their abilities to meet job requirements. By providing information about the interests, aptitudes, adaptabilities, and other requisites of occupational groups, the GOE makes possible a comparison of their requirements with what the individual knows about himself or herself. It also is a tool for counselors assisting individuals in self-assessment and occupational choice.

  The data in the GOE are categorized into 12 interest areas, 66 work groups, and 348 subgroups. The classification structure follows that organization; for example, 01 represents artistic (an interest area), 01.01 represents literary arts (a work group within the interest area), and 01.01.02 represents creative writing (a subgroup within the larger work group).

  In regard to the use of the guide, the authors present an extremely valuable introductory discussion which presents five specific steps that individuals who use the guide without counselor assistance should take. The introduction also indicates numerous uses for vocational counselors and for the counseling process. Lastly, the introduction explains how the GOE ties in with the General Aptitude Test Battery (GATB).

  There are two versions of the GOE: the government version published in 1979 by the Employment and Training Administration of the U.S. Department of Labor and the private sector version edited by Thomas F. Harrington and Arthur J. O'Shea and published in 1984 by the National Forum Foundation. The modifications in the latter version principally concern design and arrangement plus additional narrative in the early chapters providing suggestions for using the guide. The new edition also lists such significant occupational clues as work values, hobbies and leisure activities, activities around the home, and school subjects, and relates each clue to the pertinent work groups in the guide. It also connects work experience and military occupational specialities with career choice.

- The Standard Occupational Classification Manual (SOC). The SOC, published by the U.S. Department of Commerce, arranges all fourth-edition DOT codes in homogeneous groups on the basis of work performed. It contains a coding system that covers all occupations in which work is performed for pay or profit, including work performed in family-operated enterprises where direct remuneration may not be made to family members. The manual was developed to provide a common coding structure and common language for all users and producers of occupational information.

The SOC coding system, because it clusters occupations by similar worker function, can be of great value in assisting clients to locate additional occupations for which they may already be trained or that may require a minimum of additional training. This characteristic should be especially helpful in assisting clients in transferring their skills to related occupations. In addition, many career counselors use the SOC coding structure to organize their own resource centers. Lastly, the *Occupational Outlook Handbook* also is organized by the major SOC divisions and, thus, becomes easier to use. LMI developers appear to be moving increasingly toward the use of the SOC coding structure as a framework for various survey data.

- The Standard Industrial Classification Manual (SIC). The SIC classifies each industry by its principal product or service. Published by the Office of Management and Budget, the SIC provides a way to classify or code all types of business establishments in the United States economy. It is the most widely used industry classification system. Much data on industry growth is tabulated on the basis of SIC codes. The 1972 edition is the most recent edition of the SIC.

  The SIC manual is useful when you are seeking an understanding of the industrial makeup of a particular area. Because similar occupations frequently are found in similar industries, it is helpful to use the SIC to determine additional firms that might employ people with skills or experiences obtained from a similar industry. The SIC has two features that can be helpful to counselors. It classifies to a rather specific degree the types of businesses found within each industry. This can be especially helpful in planning a job placement strategy by suggesting alternative kinds of businesses that might hire workers in a given occupation. Second, its classification system is now used for compiling industrial statistics by a number of Federal, state, and local government agencies. An understanding of this classification system will enable you to interpret industrial data in your geographic area. In short, the manual provides a useful reference for counselors to review the range of industries in this country, to study in detail the types of firms within industries, and to use as a guide for organizing materials and literature on industries.

- A Classification of Instructional Programs (CIP). The CIP and the related definitions for describing such programs were developed and published by The National Center for Education Statistics (NCES) in the U.S. Department of Education. In order to fulfill one of its most significant mandates—the collection of data—the U.S. Office of Education and, more recently, the NCES, have supported the development of a series of educational terminology publications. These publications were developed as separate series, one for elementary and secondary schools and one for higher education. The new classification of instructional programs (published in 1981) has replaced these two earlier editions. It is intended to fill several voids with regard to instructional programs at the elementary and secondary school levels and to replace the higher education taxonomy.

  Basically, the CIP is intended as a reference to assist in the collection, reporting, and interpretation of data about instructional programs. Hence, it is intended primarily for those who (1) design data collection instruments; (2) respond to the questionnaires; and (3) compile, verify, and analyze data. In short, the CIP undoubtedly is most useful for Federal and state data collection agencies as well as the reporting institutions themselves. By providing a "common language" for all of education, the CIP serves a wide range of practitioners, from those involved in elementary school programs to others in continuing education.

  A major use of instructional program data, particularly at the Federal and state levels, is in the development of information for labor market supply and demand comparisons. In

the counseling of students, therefore, it is wise to remember that many occupations draw their entrants from multiple instructional programs; for example, sales personnel can be trained in business, engineering, liberal arts, and so forth. In addition, many instructional programs supply labor to many occupations; liberal arts is the classic example of this phenomenon. Lastly, there are some programs for which relationships to occupations are singular and direct. Knowledge of the instructional programs in the CIP will aid the counselor who needs information about subject matter content areas when a student is undecided about his or her future direction of study, and when a client has little work history to supplement his or her educational background.

Meaning of the Term *Crosswalk*

From your reading of the preceding section, you quickly can see that classification systems often appear to aim in multiple directions. This is not surprising because different agencies compile data for different purposes. In order to make greater use of this information, an additional system is needed to sort the various classifications into a series of units of analyses. It is necessary to build a "bridge," as it were, to relate, cross-reference, or cross-code the diverse classifications. The term *crosswalk* is used to designate the relationship between the various classifications.

The Most Important Crosswalk System

Over the past few years, numerous attempts have been made to develop cross-code references. For example, the NOICC publication, *A Framework for Developing an Occupational Information System* (NOICC, 1979) describes in considerable detail the following four crosswalk approaches: (1) *the California Cross-Code Index* (which related Census, DOT, and instructional program codes of the U.S. Office of Education), (2) *Tomorrow's Manpower Needs-Supplement 3* (which related the same codes as the previous reference), (3) *Vocational Education and Occupations* (which related DOT and instructional program codes of the U.S. Office of Education), and (4) the interim edition of *Vocational Preparation and Occupations* (which related Census, DOT, OES, SOC, and USOE Codes).

We will be exploring the latter in detail, that is, the third edition of the *Vocational Preparation and Occupations* (NOICC, 1982) or "VPO," as it is called. The VPO establishes relationships among classification systems for Federal and state data programs.

In the following chapter you will explore further the specific classification and crosswalk documents as well as other LMI resources that serve as the work tools for both counselors and clients.

Suggested Activities

1. As the introduction to this chapter indicates, many magazines and newspapers often carry articles that refer in some way to labor market information and data. Review your local newspaper for at least 1 week and collect as much material as you can regarding the status of your local labor market and the nature of the information reported.

2. Visit at least two school libraries and one public library in order to find out which of the resources listed in Table 3-1 are available.

3. Write to the employment security agency (SESA) in your state to ascertain the specific LMI publications developed by that state agency. Analyze the content of various LMI newsletters and research publications for a recent 3-month period.

4. Write to your State Occupational Information Coordinating Committee (SOICC) and request a statement of services as well as a list of available products.

5. Find out whether your state has developed an Occupational Information System (OIS). Determine the nature of the information and data included in the system.

6. Some of you may have access to a computerized career information delivery system (CIDS) that describes occupations in both the military and civilian sector. Whether or not you have seen such a system, consider the type of information you would want included in a CIDS with both military and civilian occupational information. Also consider the manner in which you would like to be able to access or search the data base. List the main categories of information you would want, the ways in which you would like to be able to get to the information, and the ways you might use military information incorporated into a civilian CIDS.

7. Review Appendix B, "Guidelines for the Preparation and Evaluation of Career Information Literature," in order to develop an appreciation of how national guidelines could help you select the most appropriate career information for use.

8. Talk to at least two experienced counselors to learn how they use occupational classification systems and crosswalk resources. Discuss with them the resulting situation if classification systems did not exist.

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CHAPTER IV

EXPLORING LABOR MARKET INFORMATION RESOURCES AND PRODUCTS

CHAPTER GOALS

1. Develop an understanding of the wide variety of LMI resources available from national agencies.
2. Develop an understanding of the nature of the major labor market information resources and products.
3. Develop an understanding of how classification and crosswalk systems are presented in the published resources.

HIGHLIGHTS

- Classification Resources
- Crosswalk Resource—*Vocational Preparation and Occupations*
- Additional LMI Resources Used in Counseling

Introduction

The purpose of this chapter is to review the major Federal systems, resources, and products used in reporting occupational, career, and labor market information. In chapter 3, a foundation was set to help readers understand the main producers of such information at the Federal and state levels. This chapter focuses on available resources, how you can use them, and how you can obtain them. The publications noted should be on every counselor's bookshelf or at least nearby in a career resource center. Even when you have all of these resources at hand, you will need to keep alert constantly to new resources and revisions as they become available.

The resources are divided into the following three groups: classification resources, a crosswalk resource, and additional resources used in counseling. In later chapters, you will see how these resources pertain to five actual career counseling case studies. In addition, Appendix A includes several other resources which counselors also may find useful in their work with clients.

The following resources—listed in the order they appear in the text—will be explored with regard to scope of coverage, type of information presented, brief description of contents, and how counselors can use this information:

Classification Resources

Dictionary of Occupational Titles

Dictionary of Occupational Titles: Fourth Edition Supplement, 1982

Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles

Guide for Occupational Exploration

Standard Occupational Classification Manual

Standard Industrial Classification Manual

A Classification of Instructional Programs

OES Survey Operations Manual

OES Dictionary of Occupations

U.S. Census of Population, 1980: Alphabetical Index of Occupations and Industries

U.S. Census of Population, 1980: Classified Index of Industries and Occupations

Crosswalk Resource

Vocational Preparation and Occupations

Additional Resources Used in Counseling

Occupational Outlook Handbook

Occupational Outlook Quarterly

Occupational Projections and Training Data

U.S. Industrial Outlook

Military Career Guide: Employment and Training Opportunities in the Military

Military Occupational and Training Data

Dictionary of Occupational Titles

Scope of Coverage

The *Dictionary of Occupational Titles*, or DOT as it is commonly called, defines and classifies approximately 20,000 occupations performed for pay or profit in the United States economy. It is the most comprehensive and probably the most well-known and often-used source of occupational information available. The most recent edition (the fourth edition) was published in 1977. Each occupation defined in the DOT has been assigned a unique, nine-digit code number; this DOT coding system is commonly used as a cross-referencing device for relating various kinds of occupational information. Thus, DOT codes are used in the *Occupational Outlook Handbook*, the *Standard Occupational Classification* system, and obviously, in the *Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles*. In addition, DOT codes are used by a number of standardized assessment instruments for aptitudes (e.g., the General Aptitude Test Battery) and interests (e.g., the Strong-Campbell Interest Inventory).

The bulk of the DOT consists of the Occupational Group Arrangement or "OGA" (from page 15 to page 946). That is, the definitions are arranged by DOT codes according to the occupational category (first digit), division (first two digits), and group (first three digits). The first "OGA" listing on page 15 is "001.061-010 Architect," the last listing on page 946 is "979.687-022 Screen Printer Helper." In between is a world of occupations awaiting to be discovered by anyone in need of expanding his or her occupational awareness.

Type of Information Presented

The DOT groups jobs into occupations based on their similarities. It also defines the job characteristics of all listed occupations. The definitions are the result of comprehensive analyses of how similar jobs are performed in work sites all over the country. The term *occupation*, as used in the DOT, refers to this collective description of a number of individual jobs performed in many work sites.

An occupational definition in the DOT normally has six basic parts. Each presents information about a job in a systematic fashion. The parts are: (1) the nine-digit occupational code number, (2) the occupational title, (3) the industry or industries in which the occupation is found, (4) alternate titles or other titles by which the occupation also may be known, (5) a description of the tasks performed, and (6) related occupations.

As indicated, each definition is assigned a unique nine-digit code. The *first three digits* identify a particular occupational group. All occupations are clustered into one of nine broad categories (first digit), such as professional, technical and managerial, or clerical and sales occupations. These categories break up into 82 occupational *divisions* (first two digits), such as occupations in architecture and engineering within the professional category. Divisions, in turn, separate into smaller *groups* (first three digits); 559 such groups are identified in the DOT.

The *nine occupational categories* (first digit) are as follows:

0/1 Professional, Technical, and Managerial Occupations
2 Clerical and Sales Occupations
3 Service Occupations
4 Agricultural, Fishery, Forestry, and Related Occupations

5 Processing Occupations
6 Machine Trades Occupations
7 Bench Work Occupations
8 Structural Work Occupations
9 Miscellaneous Occupations

In the following example for counselor (045.107-010), the first digit (0) indicates that this particular occupation is found in the category "Professional, Technical, and Managerial Occupations."

045.107-010 COUNSELOR (profess. & kin.) guidance counselor; vocational adviser; vocational counselor.

Counsels individuals and provides group educational and vocational guidance services: Collects, organizes, and analyzes information about individuals through records, tests, interviews, and professional sources to appraise their interests, aptitudes, abilities, and personality characteristics, for vocational and educational planning. Compiles and studies occupational, educational, and economic information to aid counselees in making and carrying out vocational and educational objectives. Refers students to placement service. Assists individuals to understand and overcome social and emotional problems. May engage in research and follow-up activities to evaluate counseling techniques. May teach classes. May be designated according to area of activity as COUNSELOR, COLLEGE (education); COUNSELOR, EMPLOYMENT DEVELOPMENT DEPARTMENT (education); COUNSELOR, SCHOOL (education); COUNSELOR, VETERANS ADMINISTRATION (gov. ser.).

The second digit refers to a division. The divisions within "Professional, Technical, and Managerial Occupations" are:

00/01 Occupations in architecture, engineering, and surveying
02 Occupations in mathematics and physical sciences
04 Occupations in life sciences
05 Occupations in social sciences
07 Occupations in medicine and health
09 Occupations in education

In the example, the second digit (4) thus locates the occupation in the "Occupations in life sciences" division.

The third digit defines the occupational *group*. The groups within the "Occupations in life sciences" division are:

040 Occupations in agricultural science
041 Occupations in biological sciences
045 Occupations in psychology
049 Occupations in life sciences, n.e.c.

The third digit in the example (5) locates the occupation in the "Occupations in psychology" group.

Here is a brief summary of the concept so far:

COUNSELOR (professional and kindred occupations) guidance counselor; vocational advisor; vocational counselor 045.107-010

Category (1st digit)	Division (2nd digit)	Group (3rd digit)
0/1 Professional, Technical, and Managerial	00/01	040
2	02	041
3	03	043
4	04 Life sciences	045 Psychology
5	05	049
6	07	
7	09	
8		
9		

The middle three digits are the worker functions ratings of the tasks performed in the occupation. Every job requires a worker to function to some degree in relation to *data, people, and things*, as shown in the following example:

Data (4th digit)	People (5th digit)	Things (6th digit)
0 Synthesizing	0 Mentoring	0 Setting up
1 Coordinating	1 Negotiating	1 Precision working
2 Analyzing	2 Instructing	2 Operating-controlling
3 Compiling	3 Supervising	3 Driving-operating
4 Computing	4 Diverting	4 Manipulating
5 Copying	5 Persuading	5 Tending
6 Comparing	6 Speaking-signalling	6 Feeding-offbearing
	7 Serving	7 Handling
	8 Taking instructions-helping	

Note. Detailed definitions of the terms *Data, People,* and *Things* are presented in the appendix of the DOT, pp. 1369-1371.

The worker function relationship within the data, people, and things hierarchy for counselor is as follows:

COUNSELOR 045.107-010

Most Complex	Data	People	Things
	0	0 Mentoring	0
	1 Coordinating	1	1
	2	2	2
	3	3	3
	4	4	4
	5	5	5
	6	6	6
		7	7 Handling
Least Complex		8	

The levels are arranged in a descending scale of complexity. The lower numbers represent more complex levels of work performance. For example, with this numbering system, it may be inferred that an occupation having the middle three digits of .107 is of higher level of complexity than a job coded .687. Although this type of inference is useful in comparing differing jobs, it should be applied mainly to jobs in the same occupational group (i.e., a group that has the same first three digits).

Keep in mind, too, that these levels are descriptive rather than quantitative. As such, they do not always represent the fullest expression of job complexity or simplicity. They describe what the worker generally does on the job. Sometimes what workers do is an adequate discriminator of performance level; sometimes it is not.

In the example showing the code for counselor, the numbers indicate that the relationship to data is at hierarchy level 1 (coordinating); the relationship to people is at level 0 (mentoring); and the relationship to things is at level 7 (handling). The numbers provide a description of the functional activities in this particular occupation. For example, the primary activities involve coordinating (i.e., determining the time, place, and sequence of actions to be taken on the basis of analysis of data). Contact with people is most apparent. In terms of "things," counseling obviously is not high on the list with regard to setting up or working with precision tools.

The assignment of the fourth, fifth, and sixth digits to any given occupation is made regardless of the occupational group involved. The functional code in the example of ".107" may apply to many occupations in many different areas of technology besides the occupational group 045, if it correctly indicates what the worker does in the various occupational groups. Lastly, the final three digits indicate the alphabetical order of titles within six-digit code groups. They serve to differentiate a particular occupation from all others. A number of occupations may have the same first six digits; no two can have the same nine digits.

It is through the combination of the first three digits with the second three digits that the full occupational meaning can be realized—*the first three specify the occupational area in which the work is being done*, and *the second three digits express what the worker does*. The resulting combination provides a thumbnail sketch of the occupation.

Brief Description of Contents

The book consists of the following nine sections:

- Introduction and summary listing (pp. xiii-xli). This section includes a brief explanation of how to use the document, a well as lists of occupational categories, divisions, and groups.
- Master titles and definitions (pp. 1-3). Master Title definitions describe work duties that are common to a number of jobs. Occupations in which these common duties are an essential part of the job refer the user to the master definition in order to save space and avoid unnecessary repetition of the common duties. Clues to classification of jobs and master definitions are provided.
- Term titles and definitions (pp. 5-14). Term titles are titles commonly used for a number of jobs that may differ widely in job knowledge required, tasks performed, and job location. Term title definitions broadly indicate the jobs that are known by the titles and provide information helpful in finding appropriate specific titles and codes.
- Occupational group arrangement (pp. 15-946). Definitions are arranged by DOT codes according to occupational category (first digit), division (first two digits), and group (first three digits).
- Glossary (pp. 947-963). This glossary defines technical words that are italicized in DOT definitions. The meaning of these technical words often differs from common usage as shown in a standard dictionary.
- Alphabetical index of occupational titles (pp. 965-1156). This index arranges titles and codes in alphabetical order and gives complete digit codes for all titles.
- Occupational titles arranged by industry designation (pp. 1157-1361). This section arranges titles and codes according to industries. Industries are identified by the abbreviated industry designations found in occupational definitions, followed by the complete industry title.
- Industry index (pp. 1363-1367). This index lists in alphabetical order all industries that are identified in DOT occupational definitions; it also indexes this material by DOT page numbers.
- Appendix: Explanation of data, people, and things (pp. 1369-1371). The concluding section interprets significance of worker functions ratings according to involvement with data, people, and things.

How Do Counselors Use This Information?

Obviously, an effective way to stifle a client's career exploration is to present that client with a copy of the DOT. Its bulk alone may turn off a user. However, the DOT can be a valuable tool for the counselor simply because it is so comprehensive. No other source of occupational information exists that even begins to approach the number of occupations contained in the DOT. Because the DOT is organized by occupational groups, it is an excellent resource for obtaining related jobs. The middle three digits provide an immediate summary of the worker's relationship to data, people, and things. Because it also lists the industries in which an occupation is found, the DOT is a valuable resource in assisting unemployed skilled workers to find similar jobs in different industries. The list of related jobs at the end of the definition serves the same function. Finally, the DOT is such a universal resource that many additional LMI resources are cross-referenced to it.

The counselor—particularly an employment service counselor—who uses the DOT should pay particularly close attention to the introductory section on "How To Use the DOT For Job Placement." The occupational code provides a method for permitting a search of the files to locate and retrieve information about applicants who previously registered with the Employment Service system for a job and to match their qualifications with available job orders. Specific approaches to using the DOT in job placement are summarized in relation to the following Employment Service operations: taking applications, taking orders, and job matching.

Acquiring the DOT: The document may be acquired from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. (Stock No. 029-013-00079-9) Cost: $23.00.

Reference: U.S. Department of Labor, Employment and Training Administration. (1977). *Dictionary of occupational titles (4th ed.). Washington, DC: Government Printing Office.*

Dictionary of Occupational Titles: Fourth Edition Supplement, 1982

Scope of Coverage

In 1982, the U.S. Department of Labor published this document for use with the DOT. The supplement contains titles, codes, and definitions for occupations that have emerged since the 1977 publication and for occupations that were omitted inadvertently from that publication. This broadening of the data base in response to user need adds to the considerable value of the DOT to all who are involved in providing guidance and counseling services.

Type of Information Presented

The supplement contains occupational titles similar to the ones in the DOT. The following is an example of one of the definitions written to reflect an increasing emphasis on employment and training:

166.267-034 JOB DEVELOPMENT SPECIALIST (profess. & kin.)

Promotes and develops employment and on-the-job training opportunities for disadvantaged applicants: Assists employers in revising standards which exclude applicants from jobs. Demonstrates to employers effectiveness and profitability of employing chronically unemployed by identifying jobs that workers could perform. Establishes relationships with employers regarding problems, complaints, and progress of recently placed disadvantaged applicants and recommends corrective action. Assists employers in establishing wage scales commensurate with prevailing rates. Promotes, develops, and terminates on-the-job training program opportunities with employers and assists in writing contracts. Identifies need for and assists in development of auxiliary services to facilitate bringing disadvantaged applicants into job-ready status. Informs business, labor, and public about training programs through various media. GOE 11.03.04 PD S5 EC I M3 L4 SVP 5 SOC 143

The following is just a small sample of several codes and titles found in the supplement:

008.061-030 Nuclear-Decontamination Research Specialist
015.067-010 Nuclear-Criticality Safety Engineer
020.262-010 Software Technician
070.117-010 Chief of Nuclear Medicine
076.127-018 Dance Therapist
079.224-010 Home Health Technician
102.167-014 Historic-Site Administrator
109.361-010 Restorer, Paper-and-Prints
159.042-010 Laserist
168.267-086 Hazardous-Waste Management Specialist
169.117-014 Grant Coordinator
195.167-042 Alcohol-and-Drug-Abuse-Assistance Program Administrator
199.261-014 Parking Analyst
203.362-022 Word-Processing-Machine Operator
249.367-086 Satellite-Instruction Facilitator
311.472-010 Fast-Foods Worker
359.367-014 Weight-Reduction Specialist
412.674-014 Animal-Nursery Worker

601.381-042 Die Maker, Electronic
637.261-030 Solar-Energy-System Installer
709.281-018 Ultrasonic Tester
739.261-010 Exhibit Builder
763.380-010 Furniture Restorer
851.362-010 Sewer-Line Photo-Inspector
865.361-010 Mirror Installer
912.663-010 Airport Utility Worker
962.261-010 Planetarium Technician
969.685-010 Snowmaker
976.385-101 Microfilm Processor
976.682-022 Microfilm-Camera Operator

Brief Description of Contents

The occupational definitions in the supplement appear in numeric order, which corresponds to the Occupational Group Arrangement of titles by nine-digit code in the DOT. To reduce its bulk, subgrouping of these definitions under category, division, and group headings, and their accompanying definitions, have been omitted. For definitions of categories under which supplement definitions occur and for further explanation of the DOT classification structure, the user should refer to the Introduction and Occupational Group Arrangement sections of the fourth edition of the DOT.

Auxiliary ratings and classifications have been added at the end of each definition to make this listing complementary to other publications that present fourth-edition DOT data. For example, *Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles* explains estimates for physical demands (PD), environmental conditions (EC), mathematical (M) and language (L) development, and specific vocational preparation (SVP). The *Guide for Occupational Exploration* and the *Standard Occupational Classification Manual* explain GOE and SOC classifications, respectively.

The DOT should be the first source of reference, with the supplement consulted for information not found in the DOT. Occupational titles referred to within the body of a definition contained in the supplement are either defined in the DOT or newly defined in this publication.

The authors of the document note that every effort has been made to keep the information in the supplement consistent with the DOT. However, some of the data processed for this publication affected occupations already accounted for in the 1977 publication. As a result, some occupations that appeared in the fourth edition DOT as undefined related titles attached to base definitions are presented as separate base definitions with new codes. These changes arose largely out of response to the need of such users as government agencies, unions, and trade associations for definitions with greater specificity of job content.

How Do Counselors Use This Information?

The use of the DOT supplement is the same as the use of the DOT itself; that is, it is an excellent resource for obtaining information about additional related jobs. Because the more than 275 new definitions are so current, the counselor is presented with a timely resource that reflects new and emerging occupations.

Acquiring the DOT: *Fourth Edition Supplement, 1982:* This document may be acquired from the U.S. Government Printing Office, Washington, DC 20402 (No. 1983 0-411-595) Cost: $4.50.

Reference: U.S. Department of Labor, Employment and Training Administration. (1982). *Dictionary of occupational titles: Fourth Edition Supplement, 1982.* Washington, DC: U.S. Government Printing Office.

Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles

Scope of Coverage

The U.S. Department of Labor also published this document for use with the DOT. The publication provides an expanded interpretation of significant job characteristics for a wide range of occupations requiring similar capabilities. Supplementary information on training time (including mathematical and language development and specific vocational preparation), physical demands, and environmental (or working) conditions are listed for each job defined in the DOT. The previous (third) edition of the DOT included a volume that contained much of the same information included here. Some of this information also is presented in considerable detail in *Vocational Preparation and Occupations* (VPO) discussed below.

Type of Information Presented

As noted, this DOT supplement provides detailed information on physical demands, environmental conditions, and training time for each job defined in the DOT. The information is presented in two parts: Part A includes the titles arranged by the *Guide for Occupational Exploration* (GOE) work groups and physical demands; Part B is an index of titles by DOT code. The unique feature of Part A is the grouping of occupations according to similarity of physical demands requirements; that is, all jobs that are sedentary (within a work group) are listed together, all light jobs are shown together, and so forth.

Brief Description of Contents

Part A contains the following information on all DOT occupations: the strength factor, physical demands, environmental conditions, levels of math and language development required to do the work, and specific vocational preparation or training time. It also clusters all DOT occupations by a coding structure outlined in the *Guide for Occupational Exploration*. The GOE clusters all DOT occupations by worker-interest factors. However, it is *not* necessary to be familiar with the GOE in order to obtain this information. All of the information contained in Part A is in a coded format. Keys for interpreting the coded information are found in the following appendixes of *Selected Characteristics*: A (physical demands), B (environmental conditions), C (math and language development), D (specific vocational preparation), and E (occupational aptitude patterns).

Part B is really an index organized numerically by DOT code. This index provides the GOE code for each DOT code. Because all information in Part A is listed by GOE code, this is an invaluable index. For example, if you want to know the specific vocational preparation for the occupation of counselor, you must first locate the nine-digit DOT code for counselor (045.107.010). In Part B, you will find 045.107.010 listed on page 300 of the book. The number listed after the DOT code is the GOE code, which you will use in Part A to find the specific vocational preparation for counselor. The GOE for counselor is 10.01.02; the needed information is located on page 259.

To illustrate these concepts further, the following brief examples (from pages 259 and 300, respectively) are helpful:

PART A

10.01 Social Services

Occupations in this group involve assisting people in dealing with problems that are usually personal, social, vocational, physical, educational, or spiritual in nature. Skills and abilities required include: Applying logic and special training to counsel individuals or assist them in defining and solving social, personal, or other related problems; gaining trust and confidence of people by demonstrating interest in and desire to help people; keeping records and writing investigative reports; and communicating effectively with people.

10.01.02 Counseling and Social Work

DOT Code	DOT Title and Industry Designation	Physical Demands	Environmental Conditions	M	L	SVP
045.107-014	COUNSELOR, NURSES' ASSOCIATION (medical ser.)	S 4 5	I	4	5	8
045.107-018	DIRECTOR OF COUNSELING (profess. & kin.)	S 5	I	5	5	8
045.107-022	PSYCHOLOGIST, CLINICAL (profess. & kin.)	S 5 6	I	5	6	8
045.107-026	PSYCHOLOGIST, COUNSELING (profess. & kin.)	S 5	I	5	5	8
045.107-034	PSYCHOLOGIST, SCHOOL (profess. & kin.)	S 5 6	I	5	5	8
045.107-038	RESIDENCE COUNSELOR (education)	S 5	I	4	5	7
045.107-042	VOCATIONAL-REHABILITATION COUNSELOR (gov. ser.)	S 5	I	3	5	8
090.107-010	FOREIGN-STUDENT ADVISER (education)	S 5	I	2	5	7
090.117-018	DEAN OF STUDENTS (education) I	S 5	I	3	5	8
091.107-010	DEAN OF STUDENTS (education) II	S 5	I	3	5	8
159.207-010	ASTROLOGER (amuse. & rec.)	S 5	I	4	4	4
166.167-014	DIRECTOR OF PLACEMENT (education)	S 4 5	I	5	5	8
187.167-198	VETERANS CONTACT REPRESENTATIVE (nonprofit organ.)	S 5	I	4	5	7
195.107-010	CASEWORKER (social ser.)	S 5	I	4	5	7
195.107-014	CASEWORKER, CHILD WELFARE (social ser.)	S 5	I	3	5	7
195.107-018	CASEWORKER, FAMILY (social ser.)	S 5	I	4	5	7
195.107-022	SOCIAL GROUP WORKER (social ser.)	S 5	I	3	5	8
195.107-030	SOCIAL WORKER, MEDICAL (profess. & kin.)	S 5	I	3	5	7
195.107-034	SOCIAL WORKER, PSYCHIATRIC (profess. & kin.)	S 5	I	3	5	7
195.107-038	SOCIAL WORKER, SCHOOL (profess. & kin.)	S 5	I	3	5	7
195.137-010	CASEWORK SUPERVISOR (social ser.)	S 5	I	3	5	7
195.167-030	PAROLE OFFICER (profess. & kin.)	S 5	I	3	5	7
199.207-010	DIANETIC COUNSELOR (profess. & kin.)	S 5	I	3	4	6
045.107-010	COUNSELOR (profess. & kin.)	L 4 5 6	I	5	5	7
195.107-026	SOCIAL WORKER, DELINQUENCY PREVENTION (social ser.)	L 5	I	3	5	7
195.267-014	HUMAN RELATIONS OR DRUG AND ALCOHOL COUNSELOR (military ser.)	L 4 5	I	3	3	6
195.367-010	CASE AIDE (social ser.)	L 5	I	3	5	6

Note. From *Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles* (p. 259) by U.S. Department of Labor, Employment and Training Administration, 1981, Washington, DC: U.S. Government Printing Office.

PART B

DOT Code	GOE Code	Str Fac	DOT Title and Ind
045.107-010	10.01.02	L	COUNSELOR (profess. & kin.)
045.107-014	10.01.02	S	COUNSELOR, NURSES' ASSOCIATION (medical ser.)
045.107-018	10.01.02	S	DIRECTOR OF COUNSELING (profess. & kin.)
045.107-022	10.01.02	S	PSYCHOLOGIST, CLINICAL (profess. & kin.)
045.107-026	10.01.02	S	PSYCHOLOGIST, COUNSELING (profess. & kin.)
045.107-030	11.03.01	L	PSYCHOLOGIST, INDUSTRIAL-ORGANIZATIONAL (profess. & kin.)

Note. From *Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles* (p. 300) by U.S. Department of Labor, Employment and Training Administration, 1981, Washington, DC: U.S. Government Printing Office.

To interpret these charts, refer to the appendixes of *Selected Characteristics*. The appendixes will indicate that, according to the *physical demands* column, the work of counselors is classified as light. The numbers (4, 5, or 6) indicate that reaching, handling, fingering, and/or feeling (4) are involved; that talking and/or hearing (5) are involved; and that seeing (6) is involved. The *I* indicates that all of the occupations are "inside jobs." The *M* column indicates the level of mathematic development needed; in this example, a counselor (045.107.010) normally needs to function at a level 5 in mathematics. The *L* column indicates the level of language development needed; a counselor normally needs to function at a level 5 in language. *SVP* is the specific vocational preparation time. A counselor will need to be at level 7; that is, "over two years up to and including four years" of special preparation.

How Do Counselors Use This Information?

This resource provides additional insights into the characteristics and requirements of scores of occupations. Using it with the DOT will promote a better understanding of the relationships and differences among occupations and will suggest transfer possibilities from one occupation to another. *Selected Characteristics* also is an excellent resource to use in dealing with handicapped students or clients. Information on strength factors, physical demands, and environmental conditions is essential in their career planning process. In addition, the math and language development and SVP data are especially important in working with clients considering training for a particular occupation. And, lastly, counselors who can make use of the GOE worker interest clustering arrangement in the *Selected Characteristics* will find it a good resource to use in assisting those beginning career exploration.

The appendixes help the counselor interpret the charts and thereby provide vital information for use with clients. The discussion of the VPO also is relevant here, because this document includes some of the same basic information.

Acquiring *Selected Characteristics*: This document may be acquired from the U.S. Government Printing Office, Washington, DC 20402. (Stock No. 1980 0-301-746) Cost: $11.50.

Reference: U.S. Department of Labor, Employment and Training Administration (1981). *Selected characteristics of occupations defined in the dictionary of occupational titles.* Washington, DC: U.S. Government Printing Office.

Guide for Occupational Exploration

Scope of Coverage

The *Guide for Occupational Exploration* (GOE) is a U.S. Employment Service publication designed to provide job seekers with information about fields of work that match their own interests and abilities. The GOE organizes occupations into 12 interest areas, 66 work groups, and 348 subgroups. The interest areas are as follows:

01 - Artistic
02 - Scientific
03 - Plants and animals
04 - Protective
05 - Mechanical
06 - Industrial
07 - Business detail
08 - Selling
09 - Accommodating (e.g., services)
10 - Humanitarian
11 - Leading-influencing
12 - Physical-performing

These areas represent the broad interest requirements of occupations (e.g., 10—Humanitarian, involves interest in helping others with their mental, spiritual, social, physical, or vocational needs). The work groups are the jobs suitable for exploration by those who have a particular interest (e.g., 10.01—Social Services). The subgroups are occupations organized to make it easier for the user to distinguish among the occupations (e.g., 10.01-02—Counseling and Social Work).

Type of Information Presented

Descriptions are provided for each of the 66 work groups. Each description contains a general overview of the occupational area, followed by narratives regarding the following questions: What kind of work would you do? What skills and abilities do you need for this kind of work? How do you know if you would like or could learn to do this kind of work? How can you prepare for and enter this kind of work? What else should you consider about these jobs? The final section of each work group lists the DOT codes that are covered in the description.

The sample below (from p. 276) illustrates one type of question asked and a portion of the answer for Social Services (GOE 10.01):

How do you know if you would like or could learn to do this kind of work?

The following questions may give you clues about yourself as you consider this group of jobs.
—Have you been active in church or civic groups? Do you like to work with other people toward a common goal?
—Have your friends come to you for advice or help with their personal problems? Did you help them find solutions?

The final section of each description, as indicated, includes a listing of covered DOT codes. The following brief example (from p. 277) is for counseling and social work (GOE 10.01.02).

Counselor (profess. & kin.) 045.107-010
Dianetic Counselor (profess. & kin.) 199.207-010
Director of Counseling (profess. & kin.) 045.107-018
Parole Officer (profess. & kin.) 195.167-030
Psychologist, Clinical (profess. & kin.) 045.107-022
Psychologist, Counseling (profess. & kin.) 045.107-026
Psychologist, School (profess. & kin.) 045.107-034
Social Worker, Medical (profess. & kin.) 195.107-030
Social Worker, Psychiatric (profess. & kin.) 195.107-034
Social Worker, School (profess. & kin.) 195.107-038

Brief Description of Contents

The GOE contains a brief introduction explaining the purpose and organization of the guide; a description of its use in career exploration; definitions of the interest areas; and a summary list of all the interest areas, work groups, and subgroups. This is followed by approximately 300 pages—the Area and Work Group Arrangement—devoted to the questions and answers and, in some cases, lengthy lists of relevant DOT titles and codes.

The second half of the document contains several valuable appendixes. For example, Appendix B discusses the related use of U.S. Employment Service (USES) interest and aptitude tests; Appendix C presents suggestions for using the guide in organizing occupational information; and Appendix D (380 pages) presents an alphabetical arrangement of the occupations, with related DOT and GOE code numbers.

How Do Counselors Use This Information?

The authors of the GOE include a detailed explanation of the use of the guide in career exploration. They explain its use by individuals without the counselor's assistance, its use by counselors, its use in determining occupational goals, and its tie-in with the General Aptitude Test Battery. For example, the GOE interest areas can be directly related to the occupational categories in Holland's Self-Directed Search. The GOE also is part of a coordinated assessment/occupational exploration system developed by USES for use in the counseling process. Other parts include the Interest Inventory and the Interest Check List.

The GOE is intended for many users, with or without counseling help. As noted, the data are organized into interest areas, work groups, and subgroups. In this sense, the GOE also is considered a classification system.

Acquiring the GOE: This document may be acquired from the U.S. Government Printing Office, Washington, DC 20402. (Stock No. 029-013-00080-2) Cost: $12.00.

Reference: U.S. Department of Labor, Employment and Training Administration. (1979). *Guide for occupational exploration.* Washington, DC: U.S. Government Printing Office.

Note: There are two versions of the GOE. In addition to the government edition cited above, the private-sector edition may be acquired from the American Guidance Service, Publishers' Building, Circle Pines, MN 55014-1796. (Publication number EC 1140) Cost: $24.95.

Reference: National Forum Foundation. (1984). *Guide for occupational exploration* (2nd Ed.). Circle Pines, MN: American Guidance Service.

Standard Occupational Classification Manual

Scope of Coverage

The *Standard Occupational Classification Manual*, or *SOC Manual* as it is called, was first published in 1977. It was developed because LMI users and producers realized that they were all gathering, collecting, and coding occupational information on a variety of different coding structures which usually were not "translatable" to other structures. Therefore, while vast amounts of occupational data were being collected, much of it was unusable because it had been collected on a different structure. The SOC was developed to provide a common structure, coding all occupations in which work is performed for pay or profit, including work performed in family-operated enterprises where direct remuneration may not be made to family members.

Twenty-two broad occupational divisions are presented. Within that broader classification, 64 major groups are presented. Further, within those subcategories, literally hundreds of specific occupations are listed in various degrees of specificity.

Type of Information Presented

The most recent edition—1980—of the SOC clusters all occupations defined in the DOT into groups according to worker function (the type of work performed). The classification is structured on a four-level system: division, major group, minor group, and unit group. Major groups, minor groups, and unit groups are indicated by a two-, three-, or four-digit code, respectively. Each level represents groupings in successively finer detail.

The 22 broad occupational divisions are as follows:

- Executive, Administrative and Managerial Occupations (11-14)
- Engineers, Surveyors, and Architects (16)
- Natural Scientists and Mathematicians (17-18)
- Social Scientists, Social Workers, Religious Workers, and Lawyers (19-21)
- Teachers, Librarians, and Counselors (22-25)
- Health Diagnosing and Treating Practitioners (26-28)
- Registered Nurses, Pharmacists, Dietitians, Therapists, and Physician's Assistants (29-30)
- Writers, Artists, Entertainers, and Athletes (32-34)
- Health Technologists and Technicians (36)
- Technologists and Technicians, except Health (37-39)
- Marketing and Sales Occupations (40-44)
- Administrative Support Occupations, including Clerical (45-47)
- Service Occupations (50-52)
- Agricultural, Forestry and Fishing Occupations (55-58)
- Mechanics and Repairers (60-61)
- Construction and Extractive Occupations (63-65)
- Precision Production Occupations (67-69)
- Production Working Occupations (71, 73-78)
- Transportation and Material Moving Occupations (81-83)

- Handlers, Equipment Cleaners, Helpers, and Laborers (85-87)
- Military Occupations (91)
- Miscellaneous Occupations (99)

The following example illustrates the various major (two-digit), minor (three-digit), and unit (four-digit) groups within a SOC division:

Social Scientists, Social Workers, Religious Workers, and Lawyers—

19—Social Scientists and Urban Planners—(major group)
191—Social Scientists—(minor group)
1914—Political Scientists—(unit)

The bulk of the manual—over 330 pages—is composed of the section called, "Titles and Descriptions of Occupational Groups." The following example (from page 76) is illustrative:

24 - Vocational and Educational Counselors (Major group)

This major group includes occupations involving counseling individuals and groups on educational and vocational matters. Includes assisting students or workers in self-understanding, self-development, and career planning by presenting educational and occupational information.

Counselor		705.....045107010
Counselor, nurses' association		573.....045107014
Director of counseling		705.....045107018
Residence counselor		335.....045107038
Vocational-rehabilitation counselor		425.....045107042
Director of guidance in public schools		335.....045117010
Foreign-student adviser		335.....090107010
Supervisor, special services		335.....169267026
Counselor, education	174	
Vocational counselor	174	

Census Title

Census Code (1970)

DOT Industry Code
[This should not be confused with the *SIC* code; the key for the industry code is presented in Appendix A of the *SOC Manual*.]

DOT Code

Each DOT occupation has been assigned to one and only one three- or four-digit group. A four-digit unit group may be comprised of as few as one DOT occupation or as many as several hundred.

Brief Description of Contents

The manual itself is divided into two parts. The bulk of the document consists of the section, "Titles and Descriptions of Occupational Groups." It is in this section that the detailed information described in the previous example is provided for the 22 divisions and for a total of 64 major groups. As noted in the example, this section includes the various descriptions of the occupational groups, lists of related occupational titles (census titles), and related code numbers (e.g., the DOT code).

The second major part of the manual is an alphabetic index of occupations. The following is a brief example (from page 400):

SOC	Title	Census	Industry	DOT
24	Counselor		705	045107101
2033	Counselor, camp		133	159124010
24	Counselor, education	174		
24	Counselor, nurses' association		573	045107014

How Do Counselors Use This Information?

Because the SOC code clusters jobs by similar worker function, it is an extremely useful resource in locating additional occupations for which a worker or a potential worker may already be trained or for which he or she might require additional training. Also, many counselors have found the SOC coding structure to be an ideal way to organize their occupational materials or libraries.

Moreover, an additional resource, the *Occupational Outlook Handbook*, an extremely valuable resource for high school career exploration, is organized by the major SOC divisions. Most experts agree that in the near future, occupational demand projections, wage and salary surveys, and possibly even work force supply figures will be published using the SOC coding structure. For this reason, it is important for career and vocational counselors to become familiar with the *SOC Manual* and classification system.

Acquiring the *SOC Manual*: This document may be acquired from the U.S. Government Printing Office, Washington, DC 20402. 1980. (Stock No. 0-332-946) Cost: $9.00.

Reference: U.S. Department of Commerce, Office of Federal Statistical Policy and Standards. (1980). *Standard occupational classification manual*. Washington, DC: U.S. Government Printing Office, 1980.

Standard Industrial Classification Manual

Scope of Coverage

Information on industries is important in career counseling because industries are where workers are employed and jobs are found. The *Standard Industrial Classification Manual* (SIC) was developed, among other reasons, for use in the classification of business establishments by the type of activity in which they are engaged, that is, according to the type of product or service. The classification is intended to cover the entire field of economic activities: agriculture, forestry, fishing, hunting, and trapping; mining; construction; manufacturing; transportation, communication, electric, gas, and sanitary service; wholesale and retail trade; finance, insurance, and real estate; personal, business, repair, and other services; and public administration.

For purposes of this classification, an establishment is considered an economic unit, generally at a single physical location where business is conducted or where services or industrial operations are performed, for example, a factory, mill, store, hotel, movie theater, mine, farm, ranch, bank, railroad depot, airline terminal, sales office, warehouse, or central administrative office, and the like.

The SIC manual details the major industrial classification system used in this country; much data on industry growth are tabulated on SIC codes. Although the 1972 edition is the most recent, a brief 1977 supplement is available. The 15-page supplement includes new and deleted industries: for example, motor homes and real estate investment trusts are new; railway express services has been deleted. In addition, 16 brief modifications have been made to industry descriptions and 82 brief modifications have been made to index items.

Type of Information Presented

The SIC manual groups all industries into two broad categories of goods-producing and service-producing industries. Within these two broad categories are 10 major divisions, as follows:

"Goods-producing" industries

Division

1 Agriculture, forestry, and fishing
2 Mining
3 Construction
4 Manufacturing

"Service-producing" industries

Division

5 Transportation, communication, electric, gas, and sanitary services
6 Wholesale trade
7 Retail trade
8 Finance, insurance, and real estate
9 Services (including agricultural services)
10 Public administration

Each division is further divided into a major group, as shown in the following example:

Division 9—Services

Major Group 82—Educational Services
Major Group 83—Social Services

Major groups are then subdivided into more specific categories, as shown in the following example:

Major Group 82 EDUCATIONAL SERVICES

Group No. 829 Schools and Educational Services Not Elsewhere Classified . . . includes vocational counseling, except rehabilitation counseling

Major Group 83 SOCIAL SERVICES

Group No. 833 Job Training and Vocational Rehabilitation Services

At the four-digit level, a detailed description of the industry is provided, as seen in the sample from page 327 of the SIC Manual:

Group No.	Industry No.	
833		JOB TRAINING AND VOCATIONAL REHABILITATION SERVICES
	8331	Job Training and Vocational Rehabilitation Services

Establishments primarily engaged in providing manpower training and vocational rehabilitation and habilitation services for the unemployed, the underemployed, the handicapped, and to persons who have a job market disadvantage because of lack of education, job skill or experience, skill obsolescences, or personal characteristics or problems. Included are upgrading and job-development services, skill training, world-of-work orientation, and vocational rehabilitation counseling. This industry includes offices of specialists providing rehabilitation and job counseling. Also included are establishments primarily engaged in providing work experience for rehabilitees.

Job counseling
Job training
Manpower training
Sheltered workshops
Skill training centers
Vocational rehabilitation agencies
Vocational rehabilitation counseling
Vocational training agencies, except schools
Work experience centers (OIC, Goodwill, Job Corps, Lighthouse for the Blind)

In summary, the *Standard Industrial Classification Manual* uses a four-digit, hierarchical classification system. Each successive digit provides greater detail and more narrowly defines the industrial activity described.

Brief Description of Contents

Part I of the manual consists of the titles and descriptions of industries in the 10 major divisions. (In addition, another division called *nonclassifiable establishments* is listed and includes establishments that cannot be classified in any other industry.) Within these broad divisions, 83 major groups are identified. The manual also contains numerical and alphabetical indexes. Part II contains a numerical and alphabetical index of nonmanufacturing industries, such as service or sales industries. Part III contains a numerical and alphabetical index of manufacturing industries such as textile mill products and lumber and wood products. The initial step in locating a specific

industry in the alphabetical index, therefore, is to determine if the industry is a manufacturing or nonmanufacturing industry. Lastly, a four-part appendix includes a brief review of the principles and procedures used in developing this most recent edition of the manual.

How Do Counselors Use This Information?

Although the manual does not list specific companies by name, it is an excellent resource by which a counselor can gain a clearer understanding of the industrial makeup of a particular area. A valuable exercise is to attempt to list by major divisions the industries in your area that provide the most employment. After you have done this, locate the specific four-digit code for the five largest employers (firms) in your area.

The SIC classification also is helpful in job placement. Because similar occupations are frequently found in similar industries, it is helpful to use the SIC to determine additional firms that might employ people with skills or work experiences obtained from a similar industry.

Acquiring the SIC Manual: This document may be acquired from the U.S. Government Printing Office: Washington, DC 20402 (GPO 041-001-00066-6) Cost: $15.00.

Reference: U.S. Executive Office of the President, Office of Management and Budget. (1972). *Standard industrial classification manual.* Washington, DC: U.S. Government Printing Office.

Note: The supplement also is available through the U.S. Government Printing Office (1985 0-467-018). Cost: $2.75.

Reference: U.S. Executive Office of the President. Office of Management and Budget. (1977). *Standard industrial classification manual: 1977 supplement.* Washington, DC: U.S. Government Printing Office.

A Classification of Instructional Programs

Scope of Coverage

The principal element of this classification document is the descriptions of instructional programs of the elementary, secondary, and—particularly—the postsecondary levels. A total of 31 programs are included, ranging alphabetically from agriculture and architecture . . . to life sciences and mathematics . . . to trade and industrial and the visual and performing arts. Within these program categories, 50 specific subcategories are presented. For example, within the Agriculture area, three subcategories are noted: (01) Agribusiness and Agricultural Production, (02) Agricultural Sciences, and (03) Renewable Natural Resources. Within the Trade and Industrial program area, the following subcategories are noted: (46) Construction Trades, (47) Mechanics and Repairers, (48) Precision Production, and (49) Transportation and Material Moving.

Type of Information Presented

The *Classification of Instructional Programs* (CIP) structure is based on three levels, as noted in the following list:

Level	Code	Title
A summary of groups of instructional programs	13.	Education
A group of instructional programs	13.13	Teacher Education, Specific subject areas
An instructional program	13.1301	Agricultural Education
	13.1302	Art Education
	13.1303 etc.	Business Education

The information actually is structured in two ways. The first, the program *purpose* dimension, is outlined as follows:

- Award programs
  - Elementary/secondary programs
    elementary
    junior high school
    high school diploma
  - Postsecondary certificates/diplomas/degrees
    postsecondary certificate or diploma (less than 1 year; 1 year or more but less than 4)
    associate degree
    baccalaureate degree
  - First professional certificates/degrees
    first professional degree
    postprofessional certificate

- Graduate certificates/degrees
  - graduate certificate
  - master's degree
  - intermediate graduate degree
  - doctoral degree
  - postdoctoral award

- Nonformal award programs
  - i.e., instructional programs that do not result in formal recognitions, such as a diploma, certificate, or degree

The second, the program *category* dimension, lists 30 overall programs and 50 groups of instructional programs, as indicated in the following list:

Agriculture
- 01. Agribusiness and Agricultural Production
- 02. Agricultural Sciences
- 03. Renewable Natural Resources

Architecture and Environmental Design
- 04. Architecture and Environmental Design

Area and Ethnic Studies
- 05. Area and Ethnic Studies

Business
- 06. Business and Management
- 07. Business and Office
- 08. Marketing and Distribution

Communications
- 09. Communications
- 10. Communications Technologies

Computer and Information Sciences
- 11. Computer and Information Sciences

Consumer, Personal, and Miscellaneous Services
- 12. Consumer, Personal, and Miscellaneous Services

Education
- 13. Education

Engineering
- 14. Engineering
- 15. Engineering and Engineering-Related Technologies

Foreign Languages
- 16. Foreign Languages

Health
- 17. Allied Health
- 18. Health Sciences

Home Economics
- 19. Home Economics
- 20. Vocational Home Economics

Industrial Arts
- 21. Industrial Arts

Law
- 22. Law

Letters
- 23. Letters

Liberal/General Studies
- 24. Liberal/General Studies

Library and Archival Sciences
- 25. Library and Archival Sciences

Life Sciences
- 26. Life Sciences

Mathematics
- 27. Mathematics

Military Sciences
- 28. Military Sciences
- 29. Military Technologies

Multi/Interdisciplinary Studies
- 30. Multi/Interdisciplinary Studies

Parks and Recreation
- 31. Parks and Recreation

Personal and Social Development
- 32. Basic Skills
- 33. Citizenship/Civic Activities
- 34. Health-Related Activities
- 35. Interpersonal Skills
- 36. Leisure and Recreational Activities
- 37. Personal Awareness

Philosophy, Religion, and Theology
- 38. Philosophy and Religion
- 39. Th ology

Physical Sciences
- 40. Physical Sciences
- 41. Science Technologies

Psychology
- 42. Psychology

Public Affairs and Protective Services
- 43. Protective Services
- 44. Public Affairs

Social Sciences
- 45. Social Sciences

Trade and Industrial
- 46. Construction Trades
- 47. Mechanics and Repairers
- 48. Precision and Production
- 49. Transportation and Material Moving

Visual and Performing Arts
- 50. Visual and Performing Arts

Brief Description of Contents

Chapter 2 (coded classification of instructional programs) and chapter 3 (definitions of instructional programs) form the bulk of the text. Chapter 2 lists all of the specific program category dimensions to the most specific instructional program level (e.g., 13.1301 Agricultural Education, 13.1302 Art Education, etc.). Chapter 3 then presents detailed definitions of instructional programs for both the *purpose* and the *category* dimensions. The following is a sample definition from the CIP (page 68):

13.1101 **Student Counseling and Personnel Services.** An instructional program that describes the theories, methods, functions, operations, and services involved in the personal, social, educational, and vocational development of students and the principles and techniques of managing, directing, and developing an organized unit providing student services within an educational institution.

The rest of the publication consists of six appendixes, including a vocational education program subset of the entire classification. (This will be particularly relevant in the later review of the crosswalk resource, *Vocational Preparation and Occupations.*)

How Do Counselors Use This Information?

This classification is intended primarily as a reference tool to assist in collecting, reporting, and interpreting data about instructional programs. It is used, therefore, particularly to aid Federal and state personnel who design data-collection LMI instruments and who compile, verify, and analyze data. Nevertheless, counselors who need general information about and definitions of instructional programs and related subject matter will find this a valuable resource, particularly when they need to present curriculum options and educational alternatives to their clients.

Acquiring the CIP: The CIP may be acquired from the U.S. Government Printing Office, Washington, DC 20402. (Stock no. 069-000-000-88-1) Cost: $7.50.

Reference: U.S. Department of Education, National Center for Educational Statistics. (1981). *A classification of instructional programs.* Washington, DC: U.S. Government Printing Office.

Occupational Employment Statistics Program

Scope of Coverage

The Occupational Employment Statistics (OES) program, a Federal/state cooperative effort initiated in 1971, is designed primarily to provide accurate staffing patterns (profiles by industry and trends of the number of workers employed by occupation) and to aid in projections of future employment requirements by industry and occupation. The program uses two occupational classification schemes, one for the *survey component* and one for the *matrix component*. Both are described here. The systems are based on the Standard Occupational Classification (SOC).

Type of Information Presented

The OES system organizes all occupations into a four-level system: division, major group, minor group, and detail. The following discusses the division and major and minor group levels.

Seven divisions are established in the OES system:

- Managerial and Administrative Occupations (code 10000)
- Professional, Paraprofessional, and Technical Occupations (codes 20000 and 30000)
- Sales and Related Occupations (code 40000)
- Clerical and Administrative Support Occupations (code 50000)
- Service Occupations (code 60000)
- Agriculture, Forestry, Fishing, and Related Occupations (code 70000)
- Production, Construction, Operating, Maintenance, and Material Handling Occupations (codes 80000 and 90000)

The definition for each of these divisions can be found in the OES dictionary. Each definition contains a general description, special instructions, and a guide to the internal organization of the division.

The seven divisions are further divided into major and minor groups. Some of the highlights of the major-minor group structure of each division are detailed below.

- First Division—Managerial and Administrative Occupations

  This division is organized into three major groups. The first group contains specialized occupations by function; the second contains specialized occupations by industry. Both of these categories are generally at the middle management level. When function and industry overlap, function takes precedence and is listed first. The third and final group includes the division residual and covers workers, usually in upper level management, whose duties are more general in nature.

  The following extract from the OES Occupational Structure outlines this first division in more detail, and shows the respective OES codes.

10000 I. MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS

13000 A. SELECTED STAFF AND ADMINISTRATIVE SPECIALTY MANAGERIAL OCCUPATIONS

13002 FINANCIAL MANAGERS
13005 PERSONNEL, TRAINING, AND LABOR RELATIONS MANAGERS
13008 PURCHASING MANAGERS
13011 MARKETING, ADVERTISING, AND PUBLIC RELATIONS MANAGERS
13014 ADMINISTRATIVE SERVICES MANAGERS
13017 ENGINEERING, MATHEMATICAL AND NATURAL SCIENCES MANAGERS

15000 B. SELECTED LINE AND MIDDLE MANAGEMENT INDUSTRY SPECIFIC MANAGERIAL OCCUPATIONS

15002 POSTMASTERS AND MAIL SUPERINTENDENTS
15005 EDUCATION ADMINISTRATORS
15008 MEDICINE AND HEALTH SERVICES MANAGERS
15011 PROPERTY AND REAL ESTATE MANAGERS AND ADMINISTRATORS
15014 INDUSTRIAL PRODUCTION MANAGERS
15017 CONSTRUCTION MANAGERS
15021 MINING, QUARRYING, AND OIL AND GAS WELL DRILLING MANAGERS
15023 COMMUNICATIONS, TRANSPORTATION, AND UTILITIES OPERATIONS MANAGERS
15026 FOOD SERVICE AND LODGING MANAGERS

19000 C. OTHER MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS

19002 PUBLIC ADMINISTRATION CHIEF EXECUTIVES, LEGISLATORS, AND GENERAL ADMINISTRATORS
19005 GENERAL MANAGERS AND TOP EXECUTIVES
19999 ALL OTHER MANAGERS AND ADMINSTRATORS

- Second Division—Professional, Paraprofessional, and Technical Occupations

  This division is organized into nine major groups and a residual category. These major groups were created by combining those professional, paraprofessional, and technical occupations requiring common bodies of knowledge and expertise. Unlike the SOC, distinctions between professional and technical workers, if made, are found at the minor group level rather than major group or division.

  The first major group in this division is management support. This group was placed in the professional division rather than the managerial division, as in the SOC, for it was felt that respondents consider individual management support occupations functionally closer to the professional specialties of this division than to the upper and middle management occupations of the first division. The management support group also includes a residual allowing the combination of this major group with the management division, if SOC compatibility is required.

  The remaining major groups primarily follow SOC order: "hard" sciences, including engineering; the social sciences and related disciplines, such as law and teaching; health

fields; and writing, art, and related fields. The two exceptions to the SOC order, the technician and computer groups, were moved so that these occupations would appear in closer proximity to the occupations they most commonly support.

- Third Division—Sales and Related Occupations

  The SOC arranges the sales division into five segments: supervisory, sale of most services, sale of nonretail products, sale of retail products, and sales-related occupations. Note that the word *nonretail* is *not* synonymous with *wholesale*, because manufacturing sales are also included in the nonretail category. In both the OES system and the SOC, retail sales is not an industry designation but rather an occupational designation for sales activities which are directed toward individuals rather than organizations or businesses.

  Unlike the SOC, the OES system includes *all* service sales occupations in the major groups—Sales Occupations, Service. In addition, a new major group was created by combining the last three SOC categories because they involve the sales of products rather than services. A few sales-related occupations such as demonstrators also have been included in this new group.

- Fourth Division—Clerical and Administrative Support Occupations

  This OES division is organized into six major groups and a residual category. As with the other divisions, the supervisory category is first. The next major group includes industry-specific clerical occupations. This group is placed early in the clerical division so that respondents can more easily locate these occupations. These two major groups are followed by the general secretarial and related groups, an office machine group, a communications group, and a material recording group. Note that although most clerical workers use office machines to some extent, the OES (and SOC) category for office machine operators covers workers whose duties are almost exclusively unique office machine operations.

- Fifth Division—Service Occupations

  This division includes protective service, food service, health service, personal service, and cleaning service occupations as major OES occupational groups.

- Sixth Division—Agriculture, Forestry, Fishing, and Related Occupations

  Because many of the occupations related to this division are found in industries outside the scope of the OES survey, this division covers only those occupations needed for the OES survey as defined by its current nonagricultural scope. However, this division's outline form allows additional occupations to be added for matrix purposes using data from non-OES survey sources.

  The SOC treatment of managers and laborers in this division is somewhat unusual because both are included in this division rather than in the separate managerial and laboring SOC categories. The OES system reflects this fact, as can be seen by the supervisory title in this division. Farm managers is a separate SOC occupation in the agriculture SOC division and would be added from non-OES sources.

- Seventh Division—Production, Construction, Operating, Maintenance, and Material Handling Occupations

This is the largest and most diverse of all the OES divisions. The major groups are listed below.

Supervisory
Inspecting
Repair
Construction and extraction
Precision production
Machine setting and operating
Assembling and hand working
Plant and system operation
Transportation and material handling
Helpers and laborers

Because of the size and diversity of these occupations, this division has no overall residual. Thus, for completeness, every survey code must contain an exhaustive element for each of the 10 major groups.

To understand the 10 major groups in this division, it is important to be familiar with related SOC principles. The first basic principle of organization is that occupations are grouped by function (e.g., inspecting, repairing, producing). An equally important principle is the organization of occupations according to skill requirements (e.g., precision, set-up, operating, helping).

A third distinction is made between machine and hand operations in many of these groups. In this case, "hand" operations include the use of hand-held power tools. The hand and machine categories are not exhaustive, however, because both precision hand work and machine work are placed in the precision category. For OES purposes, an exception to the SOC placement was made and precision assembling occupations were placed in the hand working category allowing for proximity to the other assembling occupations.

The SOC and the OES systems also distinguish between "manual" occupations such as material handling and "hand" occupations such as grinding. Here, the distinction is made according to whether or not the worker is directly working on the manufacture of a product.

Within the large production precision and machine groups, distinctions are made on the basis of materials worked (eg., metal/plastic, wood, textile, assorted/other). The assorted/other category includes working with combined materials as well as working with single materials, such as stone, which have not been previously specified. Note that in the machine group only the metal/plastic category is exhaustive, because it contains all non-precision metal/plastic machine operations—working (cut and form), fabricating, and processing.

Brief Description of Contents

The OES system groups all occupations into seven divisions, with major and minor groups under each division. Each is assigned an OES code. The OES codes were developed to reflect an occupation's relationship to its division, major group, and minor group.

The first three digits of the five-digit code reflect the occupation's organizational relationship.

All codes ending in "0" represent summary-level occupations. Summary-level occupations are sometimes used as survey code line items when the individual breakout of occupations is inappropriate due to small employment. Because of the limitations of the five-digit code, a few summary-level occupations occur at the detail level.

All occupation codes ending in a "9" represent residual occupations. The scope of a residual occupation depends on the other occupations listed in the survey code. Some groups contain more than one residual, such as the precision assembling group (code 93100). These double residuals have codes ending in "97" or "98," and are used to allow separate aggregations to the SOC level.

Division residuals have codes reflecting the division code in the first digit and end in "9999." As mentioned earlier, the last division (codes 80000 and 90000) has no overall division residual.

OES matrix code. Data on current employment and projected occupational demand resulting from the OES program are prepared through the use of the industry-occupation matrix.

National Industry-Occupation Matrix System. The national industry-occupation matrix system follows a coding similar to the OES survey system. The OES survey occupational titles are arranged in matrix groupings. Each occupation in the survey is assigned a code, with the first five digits being those in the OES survey system. Some modifications from the OES survey are made because some OES survey occupations are collapsed in the matrix system, and because some additional occupations not covered in the OES surveys are added to the matrix.

How Do Counselors Use This Information?

The OES survey occupational structure was developed to suit the needs of both data users and data producers. The system is based on a comprehensive occupational structure that emphasizes occupations requiring substantial training and/or those that are of special user interest, such as technology related occupations. The system's compatibility to the 1980 SOC system also is beneficial to users. Many Federal and state publications and products are developed as a result of the OES program. Although as a counselor you may not need to use the classification structure directly, almost surely you will use the output of the program in many ways.

References: *OES Survey Operations Manual.* 2nd ed. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics and the Manpower Administration, December 1974.

OES Dictionary of Occupations. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, 1983.

Census of Population

Scope of Coverage

The census is a complete count of the population of the United States and its territories. It has been taken every 10 years since 1790. Recent censuses have collected such characteristics as age, sex, and race on a 100% basis and more detailed information from a sample of the population. Rather than going to employers, the census is directed to households to survey individuals.

Two important census documents are relevant to counselors: the *Alphabetical Index of Industries and Occupations* and the *Classified Index of Industries and Occupations.*

The basic content of both indexes is derived largely from previous editions. However, about 6,200 new occupation titles have been added. Many of these come from the *Dictionary of Occupational Titles.* The indexes list industry and occupation titles reported in earlier censuses and surveys, including titles used most often in the economy. However, some titles may not be listed because they are too new to be included. Some rarely used titles also are not included.

Type of Information Presented

The alphabetical index was developed primarily for use in classifying a respondent's industry and occupation. The index lists approximately 20,000 industry and 29,200 occupation titles in alphabetical order. It is a comprehensive list of specific industries and occupations developed over time and continuously updated through review of census and survey questionnaires.

Each title has been assigned a number or letter code. Coding specialists assign the codes to questionnaire responses on industry and occupation in order to sort these responses into appropriate industry and occupation classification categories. To help the user understand how the titles fit into the classification structure, the titles appearing in alphabetical order are regrouped by category in the classified index.

The classified index was developed primarily to define the industrial and occupational classification systems adopted for the 1980 census. For each category in the industrial and occupational classification systems, it presents the individual titles that constitute the category. These titles can be considered a definition of their respective categories. As noted, the companion volume—the alphabetical index—presents the same titles in alphabetical order.

Brief Description of Contents

The alphabetical index is divided into two parts: the first covers industries and the second covers occupations. The individual industries and occupations are listed alphabetically and many are cross-indexed.

The classified index also is divided into two sections. The first lists the industry categories and their component industry titles; the second lists the occupation categories and their component titles. Industry and occupation categories are shown in the order they appear in the classification systems. Titles are arranged alphabetically within each category. Many titles are followed by various abbreviations and notations. Users who have a copy of the alphabetical index will find these explanations easier to understand.

The brief examples that follow illustrate the classification systems, the purpose of which is to organize the thousands of industries and occupations. These systems do so by grouping titles describing like industries or like occupations into homogeneous categories and assigning a three-digit numeric or single alphabetic code to each category to which it is assigned. The classified index accumulates all the titles assigned to each category and thereby defines each category in the census classification systems. For example:

Industry code	Industry category (Note: The numbers in the parentheses are the SIC definitions.)
	AGRICULTURE, FORESTRY, AND FISHERIES
A (010)	Agricultural production, crops (01)
011	Agricultural production, livestock (02)
020	Agricultural services, except horticultural (07, except 078)
021	Horticultural services (078)
030	Forestry (08)
031	Fishing, hunting, and trapping (09)

Occupation Code	Occupation category (Note: The numbers in the parentheses are the SOC code equivalents.)
	MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS
	Executive, Administrative, and Managerial Occupations
003	Legislators (111)
004	Chief executives and general administrators, public administration (112)
005	Administrators and officials, public administration (1132-1139)
006	Administrators, protective services (1131)
007	Financial managers (122)

How Do Counselors Use This Information?

The census is the most comprehensive source of demographic data on the population of the United States. It also provides data on occupational employment levels based on household reports. In contrast, the OES survey and national industry-occupation matrix data are based on employer reports.

Acquiring the *Alphabetical Index of Industries and Occupations*: This document may be acquired from the U.S. Government Printing Office (1982-0-392-341: QL3) Cost: $11.00; the *Classified Index of Industries and Occupations* may be acquired from the same office (1982-380-997/233S) Cost: $8.50.

References: U.S. Department of Commerce, Bureau of the Census. (1982). *U.S. census of population, 1980: Alphabetical index of occupations and industries* (Final ed.). Washington, DC: U.S. Government Printing Office.

U.S. Department of Commerce, Bureau of the Census (1982). *U.S. census of population, 1980: Classified index of industries and occupations* (Final ed.). Washington, DC: U.S. Government Printing Office.

Scope of Coverage

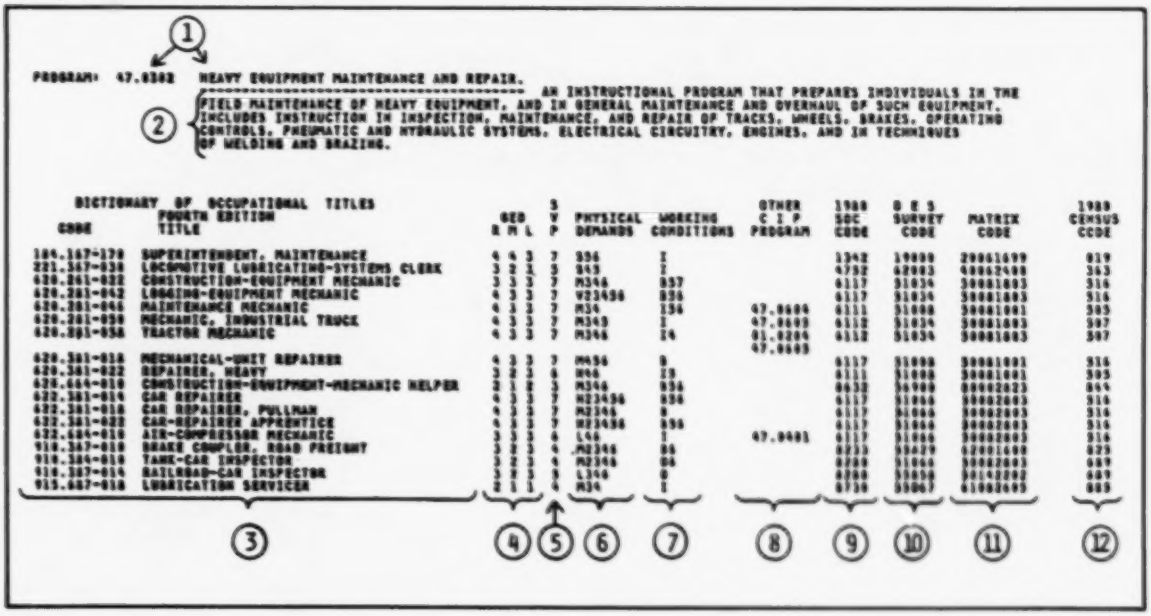
As noted earlier, because different Federal agencies collect information for different purposes and use different classifications, the data obtained are not always directly comparable. A cross-code reference is needed to identify the relationships among systems by linking classification systems currently in use. For example, *Vocational Preparation and Occupations* (VPO) links the U.S. Department of Education vocational program categories in the new *A Classification of Instructional Programs* to the occupations in the DOT, the SOC Manual, the *1980 Census Occupational Classification*, and the *Occupational Employment Statistics* survey and industry-occupation matrix. The VPO, in short, provides the bridge or *crosswalk* between the various occupational and instructional program classification systems. Since its initial development, the VPO has evolved into an extensive computerized data system that cross-codes numerous data sources. Only part of it is published and readily available for counselor use. Because the document plays such a central role in using LMI, some extended detail is provided for this particular resource.

Type of Information Presented

For our purposes, the published volume, the *Educational and Occupational Code Crosswalk*, is most important. This volume has three main sections. The first contains background materials dealing with methodology, format, applications, and classification systems. The second section consists of nine references you need as you use the VPO. The third section contains the crosswalk tables for seven vocational program areas in which secondary and postsecondary vocational education programs are offered. (Note that the higher education programs have not yet been coded for the VPO.)

Table 4-1, taken from the VPO (Vol. 1, p. 12), illustrates what a typical VPO table looks like:

Table 4-1
Sample Table From the VPO



PROGRAM: 47.0302 HEAVY EQUIPMENT MAINTENANCE AND REPAIR.

AN INSTRUCTIONAL PROGRAM THAT PREPARES INDIVIDUALS IN THE FIELD MAINTENANCE OF HEAVY EQUIPMENT, AND IN GENERAL MAINTENANCE AND OVERHAUL OF SUCH EQUIPMENT. INCLUDES INSTRUCTION IN INSPECTION, MAINTENANCE, AND REPAIR OF TRACKS, WHEELS, BRAKES, OPERATING CONTROLS, PNEUMATIC AND HYDRAULIC SYSTEMS, ELECTRICAL CIRCUITRY, ENGINES, AND IN TECHNIQUES OF WELDING AND BRAZING.

DICTIONARY OF OCCUPATIONAL TITLES CODE	FOURTH EDITION TITLE	GED R M L	S V P	PHYSICAL DEMANDS	WORKING CONDITIONS	OTHER C I P PROGRAM	1980 SOC CODE	O E S SURVEY CODE	MATRIX CODE	1980 CENSUS CODE
184.167-170	SUPERINTENDENT, MAINTENANCE	4 4 3	7	S36	I		1342	19000	20001499	019
221.367-038	LOCOMOTIVE LUBRICATING-SYSTEMS CLERK	3 2 2	3	S45	I		4782	42003	40042400	363
620.261-022	CONSTRUCTION-EQUIPMENT MECHANIC	3 3 3	7	M346	B57		6117	51034	30001803	514
620.261-042	LOGGING-EQUIPMENT MECHANIC	4 3 3	7	V23456	B56		6117	51034	30001803	514
620.281-046	MAINTENANCE MECHANIC	4 3 3	7	M34	I34	47.0604	6111	51000	30001001	505
620.281-058	MECHANIC, INDUSTRIAL TRUCK	4 3 3	7	M345	I	47.0603	6112	51034	30001003	507
620.281-058	TRACTOR MECHANIC	4 3 3	7	M346	I4	01.0204	6112	51034	30001003	507
						47.0603				
620.381-018	MECHANICAL-UNIT REPAIRER	4 3 3	7	M456	B		6117	51000	30001001	514
620.381-022	REPAIRER, HEAVY	3 2 2	6	M46	I3		6111	51000	30001001	505
620.664-010	CONSTRUCTION-EQUIPMENT-MECHANIC HELPER	2 1 2	3	M346	B34		6630	56900	80002823	864
622.381-014	CAR REPAIRER	4 3 3	7	M23456	B56		6117	51066	30002003	514
622.381-018	CAR REPAIRER, PULLMAN	4 3 3	7	M2346	B		6117	51066	30002003	514
622.381-022	CAR-REPAIRER APPRENTICE	4 3 3	7	M23456	B56		6117	51066	30002003	514
622.684-010	AIR-COMPRESSOR MECHANIC	3 3 3	4	L46	I	47.0401	6117	51066	30002003	514
910.367-010	BRAKE COUPLER, ROAD FREIGHT	3 2 3	4	M2346	B6		6733	55679	42001400	625
910.384-010	TANK-CAR INSPECTOR	3 2 3	4	M2346	B6		6708	51066	30002003	689
910.387-014	RAILROAD-CAR INSPECTOR	3 2 3	3	L346	B		6708	55056	80142202	689
915.687-010	LUBRICATION SERVICER	2 1 1	4	M34	I		6730	55067	61002699	883

Each item represents an important piece of information. The CIP program code and title appear in the first line [1]. Each descriptor [2] associated with a program code and title is shown directly below the code and title line. The related DOT codes within each CIP classification are arranged in ascending numerical order. The occupational title appears directly to the right of this nine-digit DOT code [3]. The General Education Development (GED) [4], Specific Vocational Preparation (SVP) [5], physical demands [6], and working conditions [7] further define the DOT codes and titles by providing more specific information about the nature and complexity of the occupation. The column headed Other CIP Programs [8] shows other programs that provide training for the designated occupation (i.e., other programs to which the DOT code also has been assigned). The codes listed under column headings SOC [9], OES Survey [10], Matrix [11], and Census [12] further link the DOT code and title to these classification systems.

The first item one sees when reading a crosswalk table is the CIP program number, instructional program title, and definition. (Other CIP program numbers also are listed in the columns, as are SOC codes, OES survey and matrix codes, and census codes.) The related DOT codes and titles also are listed on the columns at the left. However, for our purposes, look more closely at the four columns in the center of the table, that is, the worker trait components (the GED, SVP, physical demands, and working conditions).

General Education Development (GED) is defined as follows:

> General Education Development embraces those aspects of education (formal and informal) which contribute to the worker's (a) reasoning development and ability to follow instructions, and (b) acquisition of "tool" knowledges, such as language and mathematical skills. It is education of a general nature which does not have a recognized, fairly specific, occupational objective. Ordinarily, such education is obtained in elementary school, high school, or college. It also derives from experience and individual study. (VPO 1982, p. 40)

The GED scale is composed of three distinct divisions: Reasoning, Mathematical, and Language development. Table 4-2 defines the six levels.

> Specific Vocational Preparation (SVP) is the amount of time required to learn the techniques, acquire information, and develop the facility needed for average performance in a specific job-worker situation. This training may be acquired in a school, work, military, institutional, or vocational environment. It does not include orientation training required of a fully qualified worker to become accustomed to the special conditions of any new job. (VPO 1982, p. 42)

The following scale has been developed for the SVP:

Level	Time (Note: Time spent in the GED is not considered in estimating the SVP.)
1	Short demonstration only
2	Anything beyond short demonstration up to and including 30 days
3	Over 30 days up to and including 3 months
4	Over 3 months up to and including 6 months
5	Over 6 months up to and including 1 year
6	Over 1 year up to and including 2 years
7	Over 2 years up to and including 4 years
8	Over 4 years up to and including 10 years
9	Over 10 years

Table 4-2
Scale of General Education Development From the VPO

LEVEL	REASONING DEVELOPMENT	MATHEMATICAL DEVELOPMENT	LANGUAGE DEVELOPMENT
6	Apply principles of logical or scientific thinking to a wide range of intellectual and practical problems. Deal with nonverbal symbolism (formulas, scientific equations, graphs, musical notes, etc.) in its most difficult phases. Deal with a variety of abstract and concrete variables. Apprehend the most abstruse classes of concepts.	Advanced calculus: Work with limits, continuity, real number systems, mean value theorems, and implicit function theorems. Modern algebra: Apply fundamental concepts of theories of groups, rings, and fields. Work with differential equations, linear algebra, infinite series, advanced operations methods, and functions of real and complex variables. Statistics: Work with mathematical statistics, mathematical probability and applications, experimental design, statistical inference, and econometrics.	Reading: Read literature, book and play reviews, scientific and technical journals, abstracts, financial reports, and legal documents. Writing: Write novels, plays, editorials, journals, speeches, manuals, critiques, poetry, and songs. Speaking: Converaant in the theory, principles, and methods of effective and persuasive speaking, voice and diction, phonetics, and discussion and debate.
5	Apply principles of logical or scientific thinking to define problems, collect data, establish facts, and draw valid conclusions. Interpret an extensive variety of technical instructions in mathematical or diagrammatic form. Deal with several abstract and concrete variables.	Algebra: Work with exponents and logarithms, linear equations, quadratic equations, mathematical induction and binomial theorem, and permutations. Calculus: Apply concepts of analytic geometry, differentiations and integration of algebraic functions with applications. Statistics: Apply mathematical operations to frequency distributions, reliability and validity of tests, normal curve, analysis of variance, correlation techniques, chi-square application and sampling theory, and factor analysis.	Same as Level 6.
4	Apply principles of rational systems[1] to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Interpret a variety of instructions furnished in written, oral, diagrammatic, or schedule form.	Algebra: Deal with system of real numbers; linear, quadratic, rational, exponential, logarithmic, angle and circular functions, and inverse functions; related algebraic solution of equations and inequalities; limits and continuity, and probability and statistical inference. Geometry: Deductive axiomatic geometry, plane and solid; and rectangular coordinates. Shop Math: Practical application of fractions, percentages, ratio and proportion, mensuration, logarithms, slide rule, practical algebra, geometric construction, and essentials of trigonometry.	Reading: Read novels, poems, newspapers, periodicals, journals, manuals, dictionaries, thesauruses, and encyclopedias. Writing: Prepare business letters, expositions, summaries, and reports, using prescribed format and conforming to all rules of punctuation, grammar, diction, and style. Speaking: Participate in panel discussions, dramatizations, and debates. Speak extemporaneously on a variety of subjects.

Table 4-2
Scale of General Education Development From the VPO (continued)

LEVEL	REASONING DEVELOPMENT	MATHEMATICAL DEVELOPMENT	LANGUAGE DEVELOPMENT
3	Apply commonsense understanding to carry out instructions furnished in written, oral, or diagrammatic form. Deal with problems involving several concrete variables in or from standardized situations.	Compute discount, interest, profit, and loss; commission, markup, and selling price; ratio and proportion, and percentage. Calculate surfaces, volumes, weights, and measures. Algebra: Calculate variables and formulas; monomials and polynomials; ratio and proportion variables; and square roots and radicals. Geometry: Calculate plane and solid figures; circumference, area, and volume. Understand kinds of angles, and properties of pairs of angles.	Reading: Read a variety of novels, magazines, atlases, and encyclopedias. Read safety rules, instructions in the use and maintenance of shop tools and equipment, and methods and procedures in mechanical drawing and layout work. Writing: Write reports and essays with proper format, punctuation, spelling, and grammar, using all parts of speech. Speaking: Speak before an audience with poise, voice control, and confidence, using correct English and well-modulated voice.
2	Apply commonsense understanding to carry out detailed but uninvolved written or oral instructions. Deal with problems involving a few concrete variables in or from standardized situations.	Add, subtract, multiply, and divide all units of measure. Perform the four operations with like common and decimal fractions. Compute ratio, rate, and percent. Draw and interpret bar graphs. Perform arithmetic operations involving all American monetary units.	Reading: Passive vocabulary of 5,000–6,000 words. Read at rate of 190–215 words per minute. Read adventure stories and comic books, looking up unfamiliar words in dictionary for meaning, spelling, and pronunciation. Read instructions for assembling model cars and airplanes. Writing: Write compound and complex sentences, using cursive style, proper end punctuation, and employing adjectives and adverbs. Speaking: Speak clearly and distinctly with appropriate pauses and emphasis, correct pronunciation, variations in word order, using present, perfect, and future tenses.
1	Apply commonsense understanding to carry out simple one- or two-step instructions. Deal with standardized situations with occasional or no variables in or from these situations encountered on the job.	Add and subtract two digit numbers. Multiply and divide 10's and 100's by 2, 3, 4, 5. Perform the four basic arithmetic operations with coins as part of a dollar. Perform operations with units such as cup, pint, and quart; inch, foot, and yard; and ounce and pound.	Reading: Recognize meaning of 2,500 (two- or three-syllable) words. Read at rate of 95-120 words per minute. Compare similarities and differences between words and between series of numbers. Writing: Print simple sentences containing subject, verb, and object, and series of numbers, names, and addresses. Speaking: Speak simple sentences, using normal word order, and present and past tenses.

[1] Examples of rational systems are: bookkeeping, internal combustion engines, electric wiring systems, house building, nursing, farm management, and navigation.

Note. From VPO 1982, p. 41.

The SVP does not represent just the amount of time required to learn a job. It represents the total *training time*—the amount of general educational development and specific vocational preparation, including practice time, required of a worker to acquire knowledge and abilities necessary for average performance in a particular job. This can be illustrated in the case of a bus driver. Whereas an inexperienced driver may learn how to operate a bus within a few days, it will take some weeks, perhaps months, before the person develops the competence of average bus driving.

Physical demands are defined as the physical requirements made of the worker by the specific job situation. Strength factors and activity factors are two relevant groups.

Strength factors are expressed in terms of sedentary, light, medium, heavy, and very heavy. The five degrees of the strength factor are as follows:

- S—Sedentary work—lifting 10 pounds maximum and occasionally lifting and/or carrying such articles as docket, ledgers, and small tools.
- L—Light work—lifting 20 pounds maximum with frequent lifting and/or carrying of objects weighing up to 10 pounds.
- M—Medium work—lifting 50 pounds maximum with frequent lifting and/or carrying of objects weighing up to 25 pounds.
- H—Heavy work—lifting 100 pounds maximum with frequent lifting and/or carrying of objects weighing up to 50 pounds.
- V—Very heavy work—lifting objects in excess of 100 pounds with frequent lifting and/or carrying of objects weighing 50 pounds or more.

Activity factors are defined as physical movements that might be made by some workers on some jobs.

- Climbing and/or balancing:

  -Climbing—ascending or descending ladders, stairs, scaffolding, ramps, poles, and the like, using feet and legs and/or hands and arms.

  -Balancing—maintaining body equilibrium to prevent falling when walking, standing, crouching, or running on narrow, slippery, or erratically moving surfaces; or maintaining body equilibrium when performing gymnastic feats.

- Stooping, kneeling, crouching, and/or crawling:

  -Stooping—bending body downward and forward by bending spine at waist.

  -Kneeling—bending legs at knees to come to rest on knee or knees.

  -Crouching—bending body downward and forward by bending legs and spine.

  -Crawling—moving about on hands and knees or hands and feet.

- Reaching, handling, fingering, and/or feeling:

  -Reaching—extending the hand(s) and arm(s) in any direction.

  -Handling—seizing, holding, grasping, turning, or otherwise working with hand or hands (fingering not involved).

  -Fingering—picking, pinching, or otherwise working with fingers primarily (rather than with whole hand or arm as in handling).

-Feeling—perceiving attributes of objects such as size, shape, temperature, or texture by means of receptors in skin, particularly those of fingertips.

- Talking and/or hearing:

  -Talking—expressing or exchanging ideas by means of spoken word.

  -Hearing—perceiving nature of sounds by ear (as when making fine adjustments on running engines).

- Seeing—the important aspects of vision are as follows:

  -Acuity, far—clarity of vision at 20 feet or more.

  -Acuity, near—clarity of vision at 20 inches or less.

  -Depth perception—three-dimensional vision and the ability to judge distance and space relationships so as to see objects where and as they actually are.

  -Field of vision—area that can be seen up and down or to the right or left while eyes are fixed on a given point.

  -Accommodation—adjustment of lens of eye to bring an object into sharp focus. (This item is especially important when doing near-point work at varying distances from eye.)

  -Color vision—ability to identify and distinguish colors.

Working conditions are those physical surroundings of job-worker situations that make specific demands upon a worker's physical capacity. They include the following:

- Inside, outside, or both:

  I - Inside—protection from weather conditions but not necessarily from temperature changes.

  O - Outside—no effective protection from weather.

  B - Both—activities occur inside and outside in approximately equal amounts.

- Extreme cold with or without temperature changes:

  Extreme cold—temperature sufficiently low to cause marked bodily discomfort.

  Temperature changes—variations in temperature that accompany extreme cold and are sufficiently marked and abrupt to cause marked bodily reactions.

- Extreme heat with or without temperature changes:

  Extreme heat—temperature sufficiently high to cause marked bodily discomfort.

  Temperature changes—variations in temperature that accompany extreme heat and are sufficiently marked and abrupt to cause marked bodily reactions.

- Wet and/or humid:

  Wet—contact with water or other liquids.

  Humid—atmospheric conditions with moisture content sufficiently high to cause marked bodily discomfort. (This factor includes conditions in which the worker has contact with water or other liquids and/or works in an oppressively humid atmosphere, such as the well-cleaning room of a drycleaning plant.)

- Noise and/or vibration: For this factor to be primary, there must be sufficient noise, either constant or intermittent, to cause marked distraction or possible hearing loss and/or sufficient vibration to cause bodily harm if endured day after day.
- Hazards: These include conditions or situations in which there is danger to life, health, or bodily injury (e.g., proximity to moving mechanical parts, electrical shock, working on scaffolding and high places, exposure to burns and radiant energy, exposure to all types of explosives, and exposure to toxic chemical and biological agents).
- Atmospheric conditions: The following conditions affect the respiratory system or the skin, namely, fumes, odors, dusts, mists, gases, and poor ventilation.

Brief Description of Contents

As noted earlier, at this point we only need consider the published volume, *Educational and Occupational Code Crosswalk*. The volume is divided into three main sections. The first contains a general introduction to the VPO, a discussion of its potential uses and applications, and an explanation of each of the classification systems displayed on the crosswalk tables. The second section consists of the following references:

A. Vocational-technical education program codes and titles from *A Classification of Instructional Programs* (CIP)

B. Dictionary of Occupational Titles (DOT) Classification

C. Explanation of data, people, and things

D. Relating general education development (GED) to career planning

E. Standard Occupational Classification (SOC)

F. Occupational Employment Statistics (OES) Survey occupational categories and related matrix and industry codes

G. Conversion table: OES Survey-based matrix occupational codes and titles to OES Survey occupational codes and titles

H. 1980 Census occupation categories

I. Standard Industrial Classification (SIC)

The third section contains the crosswalk tables that were described earlier. The tables are applicable to the following seven vocational program areas:

- Agriculture/Agribusiness and Natural Resources Education
- Business and Office Education
- Health Occupations Education
- Home Economics Education
- Marketing and Distributive Education
- Technical Education
- Trade and Industrial Education

How Do Counselors Use This Information?

The VPO is designed to assist persons who need to use information obtained under various classification systems. For example, the OES matrix codes enable counselors to use other LMI products to look up descriptions of occupations with projected demand by locating the survey code. The SOC code can be extremely useful for guidance programs, because many career information systems are organized on the basis of the SOC.

The authors of the VPO specifically indicate that the following users will find the document valuable, particularly when used in conjunction with other sources: (1) job placement specialists and counselors who help individuals prepare for careers and find employment and (2) students and job seekers who must find out in which programs to enroll and which occupational skills to acquire.

The developers also pinpoint several specific applications for career counseling. To counsel others effectively about needed options, the counselor must be aware of the spectrum of occupations related to the training. The counselor also must possess detailed information about each occupation. Since there are thousands of occupations, the amount of information required for effective counseling becomes staggering. The VPO, by organizing detailed occupational information, enhances the counseling process.

For example, a client may be interested in a health occupation but may not have a specific goal in mind. By examining the Health Occupations crosswalk tables, the counselor and the client can determine the range of occupations that are potential outcomes of training programs. By reading program descriptors and reviewing related occupations, clients may be able to identify new fields of interest. A comparison of the information related to those fields with the person's interests and abilities may indicate which areas of study would be most appropriate.

The same analysis can be used in assisting special target groups. Information on physical demands and working conditions should be examined to identify aspects of the job that may need to be modified or taken into consideration in training and placement. The VPO also can be used to relate instructional programs to appropriate academic courses by using the GED to provide clues to identify the proper mathematics and language courses for a client.

The VPO crosswalk tables represent relationships that are based on a national "average." Local users, therefore, should not consider the VPO as a "rigid" document. Rather, the relationships must be modified, as appropriate, to reflect local conditions.

National Crosswalk Service Center. As mentioned earlier, the VPO has evolved into a complex and increasingly comprehensive data system. It is almost continually revised, updated, and expanded as its component systems are revised and as new elements are added to the crosswalk. (For example, the Military Occupations and Training Data cross-coding is being added, and a project to add higher education programs is planned.) Because it is no longer feasible to keep all of this voluminous information in current, published form, the National Crosswalk Service Center has been established at the Iowa State Occupational Information Coordinating Committee to maintain the master VPO crosswalk on a computer.

The National Crosswalk Service Center provides both standard and custom printouts of sorted and cross-coded data from the master VPO crosswalk to anyone requesting them through their SOICC. Fees are modest and are charged on a cost-recovery basis. Plus each year each SOICC receives a certain amount of services of their choice paid for by NOICC. The standard runs available from the National Crosswalk Service Center include the following:

- DOT codes cross-coded with CIP codes and OES matrix codes
- OES matrix code cross-coded with SOC codes and DOT codes
- DOT codes and titles in alphabetical order listed with GED, SVP, aptitudes, temperaments, physical demands, working conditions, Guide for Occupational Exploration (GOE) interest factors, etc.
- Physical demand factors cross-coded with SVP and DOT codes
- SVP codes cross-coded with CIP codes and DOT codes
- SOC codes cross-coded with 1980 census codes, CIP codes, and DOT codes
- 3 Career Profiles Standard Reports
- Dictionary of OES Survey codes, titles, and definitions

In addition, special sorts can be run at the National Crosswalk Service Center to select and organize the data elements to meet a variety of specific needs. The final products can be furnished as printouts, camera-ready copy, or print tapes.

Acquiring the VPO: This document may be ordered from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402. (Stock No. 029-014-00209-7) Cost: $21.00.

Reference: National Occupational Information Coordinating Committee. (1982). *Vocational preparation and occupations: Volume 1. Educational and occupational code crosswalk.* (3rd ed.). Washington, DC: NOICC.

National Crosswalk Service Center: Iowa State Occupational Information Coordinating Committee, 523 E. 12th Street, Des Moines, IA 50319. Telephone: (515) 281-8075.

Occupational Outlook Handbook

Scope of Coverage

The *Occupational Outlook Handbook* (OOH), published by the U.S. Bureau of Labor Statistics, U.S. Department of Labor, represents the most comprehensive information available on work today and job prospects for tomorrow. Revised every 2 years, this 16th edition covers approximately 200 occupations. For each occupation, the handbook provides information about job duties, working conditions, level and places of employment, education and training requirements, advancement possibilities, job outlook, earnings, and related occupations that require similar aptitudes, interests, or training. The occupations are grouped according to the *Standard Occupational Classification Manual* (1980). However, it also contains an index referenced to the most recent edition and supplement of the DOT. The 1984-1985 edition also includes information about the effect of the business cycle, defense spending, energy development, and other economic variables on occupational employment. The handbook information is based on data from a variety of sources, including business firms, trade associations, labor unions, professional societies, educational institutions, and government agencies. Designed primarily for career guidance purposes, the handbook is national in scope.

Type of Information Presented

Occupational "briefs" cover approximately 200 occupations clustered into 19 broader occupational groupings. For each occupation, detailed descriptive information is provided on the following topics: nature of the work; working conditions; employment; training, other qualifications, and advancement; job outlook and earnings; related occupations; and sources of related information. The descriptions also provide DOT code numbers for selected related occupations for users who may wish to follow up with additional information from that source.

The 19 major occupational categories are as follows:

- Administrative and managerial occupations
- Engineers, surveyors, and architects
- Natural scientists and mathematicians
- Social scientists, social workers, religious workers, and lawyers
- Teachers, librarians, and counselors
- Health diagnosing and treating practitioners
- Registered nurses, pharmacists, dietitians, therapists, and physician assistants
- Health technologists and technicians
- Writers, artists, and entertainers
- Technologists and technicians, except health
- Marketing and sales occupations
- Administrative support occupations, including clerical
- Service occupations
- Agricultural and forestry occupations

- Mechanics and repairers
- Construction and extractive occupations
- Production occupations
- Transportation and material moving occupations
- Helpers, handlers, equipment cleaners, and laborers

The following are brief illustrations of two of the types of information presented for the occupation of counselor:

Employment. Counselors held 148,000 jobs in 1982. Almost 2 out of 3 of these jobs were in educational services. Most of these were in secondary schools; some were in elementary schools and colleges and universities. State and local rehabilitation agencies, Veterans Administration rehabilitation programs, and V.A. hospitals were major employers of counselors. Some worked in training and rehabilitation organizations such as Goodwill and Lighthouses for the Blind.

Counselors also worked in many types of public and private community mental health and social service agencies and organizations such as family (marriage) counseling services, halfway houses and homes for children and the handicapped, offender rehabilitation agencies, self-help organizations such as Alcoholics Anonymous and drug rehabilitation organizations, and in religious organizations providing similar services.

Related occupations. Counselors help people evaluate their interests, abilities, and disabilities, as well as help them deal with personal, social, academic, and career problems. Others who help people in similar ways include college and student personnel workers, teachers, personnel workers and managers, social workers, psychologists, psychiatrists, members of the clergy, occupational and physical therapists, training and employee development specialists, and equal employment opportunity/affirmative action specialists.

Brief Description of Contents

The OOH is divided into three parts. The first section, a guide to the handbook, contains valuable information for both the counselor and client. "How to Get the Most from the Handbook" is a short but useful section for the serious career planner and gives a solid foundation of information regarding all of the areas dealt with in the OOH (e.g., nature of the work, working conditions, employment, and so on.) Another introductory section, "Where to Go for More Information," discusses in considerable detail various sources of career information, education and training information, financial aid information, counseling information for special groups, and information on finding a job. The section also furnishes addresses for each state occupational information coordinating committee and state employment security agency.

The introductory section on "Tomorrow's Jobs" describes the impact that population structure and regional differences will have on the labor force throughout the remainder of the 1980s and into the 1990s. It also contains future projections for occupations and industries. It is an especially valuable section for those beginning to plan for specific training programs. Lastly, the introductory section includes a brief overview of the methods used in preparing the employment projections.

The bulk of the text contains the section on "Occupations." Nearly 350 pages are devoted to the detailed descriptions of the occupational groupings and the specific occupational areas. The text also contains sections on nature of the work, working conditions, employment, training and

other qualifications, job outlook, earnings, related occupations, and sources of additional information. Summary data for additional related occupations are presented in tables at the end of most chapters. Lastly, there are two useful indexes: The first is organized numerically by DOT code, which also lists the SOC code and DOT title; the second is an alphabetical occupational title index.

How Do Counselors Use This Information?

The OOH will answer many of the general questions clients ask, whether they are preparing to enter the world of work for the first time, reentering the labor force after an absence, or planning to change occupations. It likely is the most used LMI resource. Everyone who can read at the high school level or above will find the OOH to be an interesting and highly informative resource.

Clearly, the OOH is an invaluable resource for counselors who are involved in imparting career and vocational guidance information. In clear language, this document describes what workers do in each job, the training and education they need, earnings, working conditions, and expected job prospects for selected occupations covering a wide spectrum of the economy.

The introductory section, "How to Get the Most From the Handbook," is particularly useful for counselors because it presents concrete steps by which clients—with the counselor's help—can begin to examine both themselves and the world of work.

Acquiring the OOH: This document may be acquired from the U.S. Government Printing Office: Washington, DC 20402. (Stock No. 029-001-02766-4) Cost: paper cover $8.50; hardcover $10.00. Individual reprints of various sections also are available at prices ranging from $1.00 to $1.50; collated sets of all 20 reprints are available at $9.00.

Reference: U.S. Department of Labor, Bureau of Labor Statistics. (1984). *Occupational outlook handbook.* (1984-1985 ed.). Washington, DC: U.S. Government Printing Office, 1984.

Occupational Outlook Quarterly

Scope of Coverage

The *Occupational Outlook Quarterly*, published by the Bureau of Labor Statistics, U.S. Department of Labor, keeps you abreast of current occupational developments between editions of the *Occupational Outlook Handbook*. It provides updated, timely information. It also organizes and synthesizes information printed elsewhere for use by counselors or clients. In addition, the *Quarterly* reviews new techniques and counseling aids.

Type of Information Presented

You will find a wide range of articles in the *Quarterly* that are highly relevant to counselors. For example, a brief review of the four 1984 issues reveals articles about the economy in 1995, high technology employment, the job outlook for college graduates through the mid-1990s, a follow-up survey on the occupations and continuing education of 1980 college graduates, working for the government—Federal, state, and local, and how workers get their training. Also, a number of very specific topics are explored, for example, managerial occupations; interpreting for the hearing impaired; three careers in new technologies—lasers, fiber optics, and biotechnology; and the occupation of a sailmaker! The first volume of the 1985 series includes three more articles on high technology jobs—computer-aided design, numerical-control machine-tool operators, and office automation; general maintenance repairers; legal service occupations; and the occupation of prosthetist, a maker of artificial limbs.

Brief Description of Contents

For the most part, as noted, the articles include employment outlook, new occupations, training opportunities, and salary trends. However, during the past several years the results of various Bureau of Labor Statistics studies have been included. For example, an article of particular value appeared in the Winter 1982 issue: "Matching Yourself with the World of Work," by G.M. Martin and M.C. Fountain (pp. 2-12). It contains a lengthy chart that, indeed, does attempt to match personal characteristics with the world of work. Table 4-3 presents one example from that chart.

The *Quarterly* also periodically publishes articles called "The Job Outlook in Brief." The following sample chart dealing with employment prospects for secondary school teachers and counselors is from the *Occupational Outlook Quarterly, 28* (1), page 13.

Occupation	Estimated employment 1982	Percent change in employment 1982-95	Numerical change in employment 1982-95	Employment prospects
Secondary school teachers	1,024,000	13	128,000	Employment expected to grow more slowly than the average. Keen competition expected through early 1990's as enrollments and teacher employment decline. Opportunities should improve after 1990 as enrollments start rising. Generally favorable opportunities will exist for persons qualified to teach special education, vocational subjects, mathematics, sciences, and bilingual education.
Counselors	148,000	10	15,000	Employment expected to grow more slowly than the average. Limited opportunities in schools. Best job opportunities expected in private practice, community and social service agencies, and personnel offices in private business.

Table 4-3
Sample Chart From the *OOQ:* Matching Yourself With the World of Work

Teachers, Librarians, and Counselors	Job requirements									Work environment				Occupational characteristics		
	1. Leadership/persuasion	2. Helping/instructing others	3. Problem-solving/creativity	4. Initiative	5. Work as part of a team	6. Frequent public contacts	7. Manual dexterity	8. Physical stamina	9. Hazardous	10. Outdoors	11. Confined	12. Jobs concentrated geographically	13. Part-time	14. Earnings	15. Employment growth	16. Entry requirements
College career planning and placement counselors	●	●	●	●	●	●								○	¹	●
College and university faculty	●	●	●	●	●	●							●	●		●
Cooperative extension service workers	●	●	●	●	●	●								○	¹	●
Employment counselors	●	●	●	●	●	●					●			¹	¹	●
Kindergarten and elementary school teachers	●	●	●	●	●	●	●	●					●	○	○	●
Librarians	●	●	●	●	●	●							●	○	○	●
Rehabilitation counselors	●	●	●	●	●	●	●							¹	¹	●
School counselors	●	●	●	●	●	●								○	○	●
Secondary school teachers	●	●	●	●	●	●								○	○	●

○ lowest level ○ middle level ● highest level

¹ Estimates not available.

Note. From Martin, G. M., and Fountain, M.C. (1982, Winter). Matching yourself with the world of work. *Occupational Outlook Quarterly 26* (4), 6.

How Do Counselors Use This Information?

The journal is designed for use by both counselors and clients. To this end, the use of pictures and graphics is unusually effective in maintaining the reader's attention. Care has been taken to simplify the reading level, although some difficulty may be experienced by those reading below the level of the average high school graduate.

Counselors who read this journal regularly will be able to keep up-to-date with current, fast-breaking issues as well as with current, rapidly changing data. Sharing information with clients is a standard practice in counseling. It is vital that such information be accurate and timely. Using the *Quarterly* assures that the counselor will have such quality information.

Acquiring the *Quarterly*: The *Occupational outlook quarterly* may be acquired from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Cost: $11.00, domestic, $13.75 foreign; single cost price $3.00 domestic, $3.75 foreign.

Reference: U.S. Department of Labor, Bureau of Labor Statistics. *Occupational outlook quarterly*, Washington, DC: U.S. Government Printing Office.

Occupational Projections and Training Data

Scope of Coverage

This statistical and research supplement to the 1984-1985 *Occupational Outlook Handbook* presents comprehensive data on current and projected occupational employment and a variety of other information that should be valuable to education planners, vocational and employment counselors, jobseekers, and others interested in occupational information. It is the seventh in a series dating to 1971 that presents the statistics and technical data underlying the information developed in the Bureau of Labor Statistics' occupational outlook program. Since 1974, *Occupational Projections and Training Data* has been published biennially as a companion to the OOH.

The 1984 edition provides in-depth employment and supply profiles of the following 18 broad occupational areas:

Administrative and managerial occupations

Engineers, surveyors, and architects

Natural scientists and mathematicians

Social scientists, social workers, religious workers, and lawyers

Teachers, librarians, and counselors

Technologists and technicians, except health

Marketing and sales occupations

Administrative support occupations, including clerical

Service occupations

Mechanics and repairers

Health diagnosing and treating practitioners

Registered nurses, pharmacists, dietitians, therapists, and physician assistants

Health technologists and technicians

Writers, artists, and entertainers

Construction and extractive occupations

Production occupations

Transportation and material moving occupations

Handlers, equipment cleaners, helpers, and laborers

Within these broad occupational areas, approximately 185 specific employment and supply profiles are presented.

Type of Information Presented

As noted, the primary focus is on employment and supply profiles. Each employment profile presents 1982 total employment data and lists all industries that account for a significant proportion of wage and salary worker employment. Each profile presents the 1995 low-, moderate-, and high-trend projections of employment and corresponding rates of change. Each supply profile includes a brief description of usual entry-level requirements. These requirements are stated in general terms and, therefore, may differ from those of specific employers. In many cases, the profile also discusses briefly the characteristics of entrants, lists appropriate formal education and training programs, and notes where data are available on a supply profile.

Brief Description of Contents

In each issue of this publication, one chapter presents general employment trends. Periodically other chapters are included that present the results of BLS research on separation rates, replacement needs, and occupational training patterns. The last chapter presents detailed information for selected occupations, including worker characteristics, current and projected employment, industry concentration, and, where data permit, occupational supply and demand. Appendixes include an explanation of the assumptions and methods used in preparing employment projections, statistics on projected employment for about 700 occupations with employment of 5,000 or more, detailed information on education and training program completions, and a list of state employment security agencies.

The following is an illustrative example (from page 26) of a profile:

Counselors

EMPLOYMENT PROFILE

Total employment, 1982 148,000

Selected characteristics of workers, 1982:
- Percent female 51.8
- Percent black 12.8
- Percent employed part time 13.6

Unemployment rate ..... About average

Industry concentration of employment (wage and salary workers), 1982:

Industry	*Percent*
Educational services	61.7
Social services	17.9
State government	12.5

Projected employment, 1982-95:

	Low	*Moderate*	*High*
1995 employment	159,000	163,000	167,000
Percent change	7.4	9.8	12.4

Employment change ..... Slower than average

Annual replacement rate ..... 13.5 percent

SUPPLY PROFILE

Usual entry level requirements. A master's degree in some area of counseling or psychology generally is required. In some cases, individuals with a bachelor's degree in psychology, sociology, counseling, and rehabilitation services are qualified, particularly if they have appropriate work experience. Many states require public school counselors to have both counseling and teaching certificates. Counselors in most State vocational rehabilitation agencies must pass a written exam and be evaluated by a board of examiners.

Training completions:

Earned degrees, baccalaureate and above, 1982:[1]

Bachelor's	568
Master's	16,263
Ph.D.	1,468

[1]Includes educational psychology, student personnel, and psychology for counseling.

Characteristics of entrants. Most entrants are college graduates who transfer from related fields such as social work, teaching, interviewing, job placement, psychology, or personnel work. Others are recent college graduates, some of whom have held part-time jobs while in school. Some have been tending to family responsibilities. Because prior work experience is usual for counselors, entrants tend to be somewhat older than entrants to other occupations.

How Do Counselors Use This Information?

Counselors can find many ways to use the information in this resource. For example, in "Tomorrow's Jobs" they can gain insights into how the nation's work force and economy are likely to shape up through the mid-1990s; which occupations will grow the fastest, which will decline, and which will provide the greatest number of new jobs; and how significant are replacement needs and which occupations have the highest and lowest turnover rates.

In the employment and supply profiles, counselors will be able to locate occupational data for their clients on 1982 and projected 1995 employment, growth, industry concentration, demographic characteristics, part-time employment, unemployment rate, replacement rate, and training completions. They also can use the descriptions of usual entry-level requirement and characteristics of entrants. Because the occupations are grouped the same way as in the 1984-1985 OOH (that is, using the SOC classification), counselors can easily locate the profile for a specific occupation. Lastly, the supplementary information can be used by counselors when they need more career information from specific states because the addresses of state employment security agencies are provided.

Acquiring *Occupational Projections and Training Data:* This document may be acquired from the U.S. Government Printing Office, Washington, DC 20402. (Bulletin 2206, GPO Stock No. 029-001-02804-1) Cost: $4.00.

Reference: U.S. Department of Labor, Bureau of Labor Statistics. (1984). *Occupational projections and training data* (1984 ed.). Washington, DC: U.S. Government Printing Office.

U.S. Industrial Outlook

Scope of Coverage

This document is published annually. In this edition (1985) of the *U.S. Industrial Outlook*, more than 100 U.S. Department of Commerce analysts have contributed their industry expertise in describing the mosaic of the economy. There also is an increased emphasis on the international aspects of the industries covered, reflecting the growing recognition that many industries now compete in a global marketplace. The resource also covers more industries and provides more information and analyses on American business competing in world markets than ever before. The 1985 volume contains upgraded analyses and offers more comprehensive statistics than previous issues.

In short, this annual document provides a compact survey of U.S. business. The core of the volume is a narrative section that discusses current developments in each industry and explains the factors that produced the statistics shown in the various trends tables and profiles. The narrative also contains long-range forecasts developed by analysts on the basis of their knowledge of materials and energy supply conditions, technological developments, and overall customer demand trends that are likely to affect the industry over the next decade.

Type of Information Presented

Published by the U.S. Department of Commerce, the *U.S. Industrial Outlook* provides in-depth industry reviews and forecasts, the current situation, short-term (annual) outlook, and long-term prospects.

The bulk of the *U.S. Industrial Outlook* consists of industry reviews and forecasts. In the 1985 edition, this section is divided into 68 chapters or major industry groups, such as Construction, Printing and Publishing, Motor Vehicles, Aerospace, and the like. Most of these major industry groups are further divided into more specific industry groups, as shown in the following two examples:

Chapter 51: "Information Services"

- Computer Services
- Videotex and Teletext Services
- Electronic Data Bases
- Research and Development

Chapter 52: "Transportation Services"

- Airlines
- Trucking
- Railroads
- Ocean Shipping

The format for each chapter consists of an introductory section on the major industry group, such as information or transportation services, as seen in the previous examples. The introduction includes general comparisons of the specific industry groups included in the chapter. After the introductory information on the major industry group, a four- or five-page section is devoted to each specific industry group. Each of these sections is further subdivided into "Current Situation," "Outlook for 1985," and "Long-Term Prospects," with charts and graphs illustrating the industry data. Throughout the text, *Standard Industrial Classification* (SIC) codes are used, making it possible to cross-reference these two important sources of industrial information.

Brief Description of Contents

The introductory sections of this resource include a number of special features, for example: how to get the most out of the book, underlying assumptions, highlights of the 1985 manufacturing outlook, capital investment in the economy, the sources of new jobs, the growing role of the service sector, and industrial energy consumption over a recent period.

The special features are followed by the industry reviews and forecast section. This major section, as noted, contains 68 chapters, each dealing with the various industries. The index, which contains a detailed alphabetical listing of all of the specific industries and the related SIC codes, is helpful in locating information on a specific industry.

How Do Counselors Use This Information?

In order to be understood fully, some of the information requires some background in economics. Although some clients will find the information useful, the document probably will be most useful for counselors. Because occupations exist only within industries, it is necessary not only to assist clients in career exploration but also to guide them into an occupation within an industry that is prospering. For example, clerical workers or accountants probably would be better off seeking employment in the office machines industry than in the footwear or textile industries.

In addition, counselors who are aware of industry projections have a much better perspective on their local labor market and are better able to assess opportunities that might exist in industries new to their area. Because similar jobs usually exist within similar industries, counselors who have a clear understanding of what a particular firm or industry produces are more likely to be able to help work-experienced clients transfer skills from one industry to another in times of high unemployment.

In short, counselors need to be aware of the nature of the various industries, their current growth levels, and their prospects. This analysis provides a "snapshot" of recent activity in industry segments of the economy. The projection tables are paticularly relevant to understanding the rapid growth industries and growth factors.

Acquiring the *1985 U.S. Industrial Outlook:* The document may be acquired from the U.S. Government Printing Office, Washington, DC 20402. (Stock No. 003-008-00195-5) Cost: $15.00.

Reference: U.S. Department of Commerce, Bureau of Industrial Economics. (1985). *1985 U.S. industrial outlook: Prospects for over 350 industries.* Washington, DC: U.S. Government Printing Office.

Military Career Guide: Employment and Training Opportunities in the Military

Scope of Coverage

The *Military Career Guide* (MCG) was developed by the Office of the Assistant Secretary of Defense for Manpower, Installations and Logistics for the purpose of providing students with information about enlisted military occupations.

The document clusters military occupational specialty information from the five military services (Army, Navy, Air Force, Marine Corps, and Coast Guard) by Standard Occupational Classification (SOC) based groupings. The clusters represent occupational areas having common job tasks.

For each of the 134 enlisted clusters of occupations in the guide, information such as typical work tasks, work environment, physical demands, training provided, helpful attributes, special qualifications, civilian counterparts, and opportunities is provided. Generally, the publication demonstrates that for the military occupations that have civilian counterparts, technical and vocational training and work experience comparable to civilian occupations can be provided by the military services.

Type of Information Presented

The 134 enlisted military occupations in the guide are arranged in 12 broad career groups, which parallel groups in the *Occupational Outlook Handbook*. The *Military Career Guide* also provides information regarding the aptitudes needed for each military occupation; students who have taken the Armed Services Vocational Aptitude Battery, Form 14 (ASVAB-14) can use their scores to determine their chances of qualifying for these military occupations.

The 12 broad occupational groups are as follows:

- Human Service Occupations
- Media and Public Affairs Occupations
- Health Care Occupations
- Engineering, Science, and Technical Occupations
- Administrative Occupations
- Service Occupations
- Vehicle and Machinery Mechanic Occupations
- Electronic and Electrical Equipment Repair Occupations
- Construction Occupations
- Machine Operator and Precision Work Occupations
- Transportation and Material Handling Occupations
- Combat Specialty Occupations

Brief Description of Contents

The major sections of the *Military Career Guide* are as follows:

- Introductory section on how to use the guide and how to use the Armed Services Vocational Aptitude Battery (ASVAB) graph

- General military information
- Service-specific information on the Army, Navy, Air Force, Marine Corps, and Coast Guard
- Military enlisted occupations—the 12 broad occupational groupings
- Indexes—DOT Code Indexes by DOT number and by occupation, an ASVAB index, and a title index

How Do Counselors Use This Information?

In addition to the 134 enlisted occupations clustered into 12 broad career areas, four indexes are provided to facilitate easy reference. These indexes allow users to search for occupations by DOT number, DOT alphabetical listing, ASVAB occupational composite, and alphabetical occupational listing. The guide also contains information relating Armed Services Vocational Aptitude Battery (ASVAB) scores to probability of qualifying for each of the 134 occupations. For example, if a student has taken the ASVAB, the counselor could encourage the student to explore careers related to his or her two highest occupational composite scores.

Acquiring the *Military Career Guide:* This document may be acquired from the Department of Defense, U.S. Military Entrance Processing Command, 2500 Green Bay Road, North Chicago, IL 60064; (800) 323-0513.

Reference: U.S. Department of Defense. (1984). *Military career guide.* Washington, DC: Author.

Military Occupational and Training Data

Scope of Coverage

Military Occupational and Training Data (MOTD), produced by the U.S. Department of Defense, represents the most comprehensive information available on military occupations. Revised annually, the current edition covers 210 occupations—76 officer and 134 enlisted. The descriptions of enlisted occupations closely parallel the descriptions in the *Military Career Guide*. For each of the occupations, the MOTD provides information about job description, physical demands, special requirements, helpful school subjects, work environment, job training, civilian counterparts, and outlook information. The MOTD is based on data from a variety of sources, including the five Services' occupational classification manuals. Designed primarily for inclusion in civilian publications, microfiche, or in computerized career information delivery systems, the MOTD is national in scope.

Type of Information Presented

This resource's occupational descriptions cover Services offering the occupation, Officer or Enlisted, Background Statement, Task Statements, Physical Demands, Special Requirements, Helpful Attributes, Work Environment, Training Provided, Civilian Counterparts, Opportunities, and Aptitude Information. The 210 descriptions also provide DOT code numbers for related civilian occupations for users who may wish to link military and civilian occupations. Coded data for military occupational specialties provide a listing of all the military Service titles and codes in each of the 210 occupational descriptions. For enlisted occupations, there are cross-references to the *Military Career Guide* (MCG): the MCG broad occupational group, the MCG page number, and the Armed Services Vocational Aptitude Battery Occupational Composite.

Brief Description of Contents

The MOTD is a source document for those individuals, government agencies, and firms that produce career information resources. It contains 210 occupational records. The entire text, approximately 660 pages, is devoted to detailed descriptions of the occupations. The document is organized by SOC code number and is available in either tape or print format.

How Do Counselors Use This Information?

The narrative and coded data describing military enlisted and officer occupations is updated annually and made available free of charge to developers of career information resources. Most computerized career information delivery systems (CIDS) have integrated the MOTD into their civilian systems. A counselor with access to a CIDS can examine the publications that accompany their system to determine how the joint-service military information has been included and how it may be accessed. In several CIDS, a user can conduct an occupational search and obtain a list of both military and civilian occupations for further career exploration.

Acquiring MOTD: This document may be acquired from the Defense Manpower Data Center, 4th floor, 1600 North Wilson Boulevard, Arlington, VA 22209, Attention: Miss Cynthia Pilecki.

Reference: U.S. Department of Defense, Office of the Assistant Secretary for Manpower, Installations, and Logistics. (1984). Military occupational and training data. Washington, DC: U.S. Government Printing Office.

Table 4-4
Summary Chart of the Major Resources

Resource	Scope of Coverage	Type of Information	Description of Contents	Major Uses
Dictionary of Occupational Titles (DOT)	Defines and classifies approximately 20,000 occupations performed for pay or profit	Contains detailed definitions, including nine-digit code number, titles, related industries, alternate titles, description of tasks performed, and related occupations	Includes nine sections, the major one being the master titles and definitions	Presents detailed information about tasks performed in 12,000 occupations, defines worker functions along data-people-things dimensions, and groups related occupations
Dictionary of Occupational Titles: Fourth Edition Supplement, 1982	For use with the DOT; contains titles, codes, and definitions for more than 275 new occupations, and for those omitted inadvertently from the 1977 edition	Contains occupational titles similar to those in the DOT, but reflects an increasing emphasis on employment and training	Presents occupational definitions in numeric order, corresponding to the arrangement of titles in the DOT, but omits subgroups; auxiliary ratings and classifications added at the end of each definition	Provides the counselor with a timely resource that reflects new and emerging occupations and provides information about additional related jobs
Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles	Provides supplementary information for use with the DOT, including an expanded interpretation of significant job characteristics for a wide range of occupations requiring similar capabilities	Presents detailed information on physical demands, environmental conditions, and training time for each job defined in the DOT	Contains two parts: the titles arranged by the *Guide for Occupational Exploration* for the work groups and physical demands, and an index of titles by DOT codes	Provides additional insights into and information about the characteristics and requirements of scores of occupations
Guide for Occupational Exploration (GOE)	Provides supportive career and occupational information on 12 broad occupational interest areas	Contains descriptions that include a general overview of the area, narratives, and specific questions counselors are likely to ask	Concentrates primarily on "the area and work group arrangement" section devoted to the questions and answers, as well as lists of relevant DOT titles and codes	Assists in determining occupational goals and ties in with the General Aptitude Test Battery (GATB)
Standard Occupational Classification (SOC) Manual	Provides a common coding structure for all occupations performed for pay or profit	Categorizes all occupations defined in the DOT; uses a four-level coding system; division, major group, minor group, and unit group	Focuses primarily on titles and descriptions of occupational groups; includes a detailed alphabetical index of occupations	Assists counselors in locating additional occupations in which their clients may have related skills

Table 4-4
Summary Chart of the Major Resources (continued)

Resource	Scope of Coverage	Type of Information	Description of Contents	Major Uses
Standard Industrial Classification (SIC) Manual	Codes all types of business establishments in the economy according to type of product or service	Categorizes industries into divisions, major groups, and subgroups; describes the nature of the industries	Provides titles and descriptions of industries; contains numerical and alphabetical indexes	Presents useful information when a counselor is seeking an understanding of the industrial makeup of an area
Classification of Instructional Programs (CIP)	Includes descriptions of instructional programs of the elementary, secondary, and particularly the postsecondary levels	Focuses on both the program purpose and the program category dimensions	Presents detailed coded classification and definitions of instructional programs	Aids the counselor who needs information about educational program subject matter content areas
Occupational Employment Statistics (OES) Program	Provides accurate staffing patterns and helps project future employment requirements by industry and occupation; uses two classification schemes: one for the survey component and one for the matrix component	Organizes all occupations into a four-level system: division, major group, minor group, and detail	Establishes seven occupational divisions and assigns an OES code to each division and group; an industry-occupation matrix shows data resulting from the OES program	Provides a system for both data users and data producers based on a comprehensive occupational structure; ties in with the 1980 SOC
Census of Population	Lists industry and occupation titles reported in earlier household censuses and surveys, including those most often used in the economy	Classifies census respondents' industry and occupation both alphabetically and by category; individual titles under each category define that respective category	Each index contains two parts, one for industries and the other for occupations; alphabetical list is cross-indexed, classified index contains abbreviations and notations and a numerical or alphabetical code	Provides the counselor with occupational employment levels based on household reports, and is the most comprehensive source of demographic data on the U.S. population
Vocational Preparation and Occupations (VPO)	Points out the relationships in a number of dimensions of various classification systems	Contains background materials dealing with the classification systems, needed references, and crosswalk tables for seven vocational areas	Includes a general introduction, a discussion of its potential uses, an explanation of the classifications, supportive materials, and the crosswalk tables	Assists counselors who need to use information detailed under various classification systems
Occupational Outlook Handbook (OOH)	Provides detailed career and occupational information on approximately 200 occupations clustered into 19 broader groupings	Presents detailed descriptions of the nature of the particular occupation; working conditions; employment, training, other qualifications, and advancement; job outlook, earnings; and related occupations	Includes three parts: a guide to the handbook and supportive information, the detailed descriptions, and two indexes	Answers many general questions that clients will likely ask

Table 4-4
Summary Chart of the Major Resources (continued)

Resource	Scope of Coverage	Type of Information	Description of Contents	Major Uses
Occupational Outlook Quarterly	Provides updated, timely information on current occupational developments between editions of the OOH; organizes and synthesizes information found elsewhere and reviews new techniques and counseling aids	Contains a wide range of articles and explores a number of very specific topics highly relevant to counselors	Includes articles on employment outlook, new occupations, training opportunities, and salary trends; also presents results of various Bureau of Labor Statistics studies	Keeps counselors and clients up to date with current, fast-breaking issues and rapidly changing data
Occupational Projections and Training Data	Provides a statistical and research supplement to the OOH, including data on employment, demand and supply, and estimates of job openings	Presents information and data on training and employment patterns in 185 specific employment and supply profiles within 18 broad occupational areas	Contains background chapters on job outlook, expected trends through 1995, occupational change, plus detailed information for the selected occupations	Provides useful information on employment prospects and relates it to the needed training requirements
U.S. Industrial Outlook (Annual)	Presents an (annual) compact survey of U.S. business	Provides indepth industry reviews and forecasts, the current situation, short-term outlook, and long-term prospects for 250 industries	Includes introductory background sections on the economy and 68 chapters on the various industries	Assists counselors in becoming aware of the nature of various industries, their current growth levels, and their prospects
Military Career Guide (MCG)	Clusters common military specialty occupations for the five military services	Contains occupational, training, aptitude, and outlook information for 134 clusters of enlisted occupations	Consists of introduction to book; general and specific information about the enlistment process and the five military services; and four different indexes	Enables counselors and their students or clients to investigate the military service as a source of employment and technical training
Military Occupational and Training Data (MOTD)	Presents the most comprehensive information available on military occupations, including job description, physical demands, special requirements, helpful school subjects, work environment, job training, civilian counterparts, and outlook information	Provides DOT code numbers for related civilian occupations; data for military specialties include all military service titles and codes for each description; enlisted occupations are cross-referenced to the MCG	Covers 210 occupations—76 officer and 134 enlisted—and is organized by SOC code number; narrative and coded data updated annually	Provides a good source for counselors, government agencies, and firms that produce career information resources; primarily designed for inclusion in civilian publications or computerized career information delivery systems

Suggested Activities

1. Visit a local career resource center and determine how many of the resources listed in this chapter are available there. If they are not available, inquire about the reasons why they are not and where they might be acquired in your local area.

2. Ask several counselors how many of these resources they have in their personal libraries and the extent to which they use each one. Also discuss with them which resources they find most valuable and least valuable—and the reasons why.

3. Discuss with a recent college graduate the specific LMI resources, if any, he or she used in order to make an initial career decision. Consider and justify which resources you would suggest to them if they were contemplating advanced education or training.

4. Outline a brief talk on "Tomorrow's Jobs" using the information on this topic in the *Occupational Outlook Handbook* and the *Occupational Projections and Training Data*. Analyze the differences and similarities of the future projections in both of these resources.

5. Role play exercise: Imagine that you are working with a student who received the following four ASVAB-14 occupational composite scores (Youth Population Percentile Scores):

Mechanical and Crafts	61
Business and Clerical	96
Electronics and Electrical	85
Health, Social, and Technology	73

   Using the *Military Career Guide*, explain to your client how to use the ASVAB occupational composite scores with the *Military Career Guide* (see pages viii and ix of the guide, which describe "How to Use the ASVAB Graph").

   Then, help your client select one or two composite scores; use the guide for occupational exploration. (Use the ASVAB Index on pages 216 and 217 to select occupations related to the ASVAB composites he or she selects.) For example, your client obtained relatively high scores in Business and Clerical and Electronics and Electrical; look on pages 216 and 217 for occupations that may interest the client.

Additional Resources

The primary sources used to compile the information in this chapter were, of course, the resources themselves. In addition, the following documents were utilized as secondary references:

Dillon, L. (1983). *Tools of the trade: Slide-tape presentation workbook*. Raleigh, NC: North Carolina State University.

National Occupational Information Coordinating Committee. (1979). *A framework for developing an occupational information system*. Washington, DC: Author.

U.S. Department of Labor, Employment and Training Administration, and National Labor Market Information Training Institute, North Texas State University. (1983). *Improved career decision making through the use of labor market information* (3rd ed.). Washington, DC: U.S. Government Printing Office.

CHAPTER V

USING LABOR MARKET INFORMATION IN CAREER COUNSELING

CHAPTER GOALS

1. Show how labor market information is used to respond to 50 typical career-related questions.
2. Show how labor market information is used in five typical career-related counseling cases.
3. Show the wide variety of labor market information used in actual counseling settings.
4. Present a problem situation and involve the reader in developing a solution.

HIGHLIGHTS

- Questions and Case Studies
- Career Counseling Phases and Elements
- Case Analysis and Conceptualization

Introduction

This chapter illustrates two types of uses of labor market information. The first revolves around 50 questions that can be answered by referral to a printed source or to a source of information at some other office or agency. The 50 questions are taken from 10,000 actual calls that have come in to the Virginia Career Information Hotline in the past 3 years. These calls have posed a wide variety of inquiries that could be answered, for the most part, by having good resources available and knowing how and when to use them. Timely, accurate, and useful labor market information makes a career hotline popular when used by well-prepared counselors who know what information is available, where it can be found, how to access it quickly, and when to use all of the resources available for the caller's best interests. These questions and responses are meant to suggest some of the resources available. They are options rather than exclusive possibilities. It is impossible to anticipate or illustrate all potential questions. The following represent a cross section of actual inquiries received on a statewide career hotline. Clearly, these questions demonstrate the need for counselors to be familiar with a very wide range of creative resources.

A second use of labor market information is illustrated in five cases of career counseling. They show case conceptualization, goal setting, case summary, and most importantly, how labor market information is used in problem definition and resolution. The cases are composites based on real situations and represent a variety of age, sex, education, and handicapping conditions. They are generic in nature; no effort was made to emphasize racial, ethnic, or local backgrounds.

Occupational Questions and Resources

1. What places in our state offer registered nursing programs besides the colleges?

   Resource:
   - State career information delivery system
   - *State Health Career Guidebook*
   - *State Directory of Postsecondary Education*

2. What does a marine biologist do and what is the outlook for the field?

   Resource:
   - *Occupational Outlook Handbook*
   - State career information delivery system
   - Commercial occupational briefs or books

3. How can I get into an apprenticeship program?

   Resource:
   - State career information delivery system
   - *State Directory of Apprenticeship Occupations*
   - State apprenticeship council (state capital)

4. How can I find out more about breeding and raising Arabian horses?

   Resource:
   - *Directory of National Trade and Professional Associations 1985* (Columbia Books, Washington, DC)

5. How can I become a paramedic and where can I get the training?

   Resource:
   - *State Health Careers Guidebook*
   - State career information delivery system

6. What kinds of careers are available in the Army?

   Resource:
   - *Military Career Guide*
   - Toll-free Army hotline, 1-800-USA-ARMY
   - Contact local U.S. Army recruiter

7. What do I need to do to become a foreign service officer?

   Resource:
   - Nearest Federal Information Center (brochure)
   - U.S. Department of State (Washington, DC)
   - Commercial occupational brief or book

8. Where can I get training in air-conditioning and refrigeration?

   Resource:
   - *Military Career Guide*
   - Commercial directory of vocational-technical schools
   - State career information delivery system

9. Because I am homebound for 6 months, where can I find out about correspondence study?

   Resource:
   - *Independent Study Catalogue* (Peterson's Guide, Princeton, NJ, 1983)
   - *Directory of Accredited Home Study Schools* (National Home Study Council, Washington, DC 20009)
   - *The Macmillan Guide to Correspondence Study* (Macmillan, New York, NY 10022, 1983)

10. Where can I get information about U.S. Government loans, grants, and work-study?

    Resource:
    - Toll-free 1-800-638-6700 (U.S. Department of Education)
    - State career information delivery system

11. I'm thinking of starting my own business. How should I get started?

    Resource:
    - State or local Chamber of Commerce
    - Small Business Administration (Washington, DC 20416)
    - *State Business Resource Directory*, published by private industry councils

12. I'm interested in interior design and want to know how to get started in the field.

    Resource:
    - State career information delivery system
    - Commercial occupational briefs and books

13. What is a marine architect?

    Resource:
    - *Dictionary of Occupational Titles*
    - *Occupational Outlook Handbook*
    - *Military Career Guide*

14. What civilian occupations are similar to my job in the Navy?

    Resource:
    - *Navy Enlisted Career Guide* (Navy Information Center, Clifton, NJ)
    - *Military Career Guide*

15. Where can I get information about the Peace Corps or VISTA?

    Resource:
    - Peace Corps/VISTA-P-301, Washington, DC 20526 (Phone 202/655-4000)

16. I'm interested in learning to make artificial limbs for people. How do I go about it? (orthotic-prosthetic technician)

    Resource:
    - *State Health Careers Guidebook*
    - State career information delivery system

17. Can you tell me anything about the Katherine Gibbs School in Philadelphia?

    Resource:
    - *Accredited Institutions of Postsecondary Education*. S. Harris (ed.). (American Council on Education, Washington, DC, 1983)

18. What careers will be in demand in the future?

    Resource:
    - "The Job Outlook in Brief" (*Occupational Outlook Quarterly*, Spring 1982)
    - *Occupational Outlook Handbook*

19. I'm in college and would like to get some work experience related to my major (i.e., journalism, international relations, environmental science). How should I go about it?

    Resource:
    - *The Student Guide to Fellowships and Internships* (Dutton, New York, NY 10016)
    - Cooperative Education or Placement Director
    - *1983 Internships* (Digest Books, Cincinnati, OH 45242)

20. Where can I find information on growth in various industries?

    Resource:
    - *U.S. Industrial Outlook*

21. Does Ferrum College offer pre-dentistry?

    Resource:
    - State career information delivery system
    - Ferrum College Catalog (1984-85)

22. I'm looking for a position as a mechanical engineer. Where can I get information about openings?

    Resource:
    - *Peterson's Guide to Engineering, Science, and Computer Jobs 1983* (Princeton, NJ)
    - Local office of State Employment Service
    - Private or professional employment service for engineers

23. I want to know how to begin training as a TV camera operator.

    Resource:
    - State career information delivery system
    - *The American Film Institute Guide to College Courses in Film and Television* (Peterson's Guides, Princeton, NJ)
    - *Military Career Guide*

24. I'm reentering the job market after not working for many years, and I'd like to know how to get started in my job hunt.

    Resource:
    - Local office of the State Employment Service
    - Career center at community college, women's resource center
    - *Merchandising Your Talents* (U.S. Department of Labor)

25. Where can I get training in the Athens area as a medical supply technician?

    Resource:
    - State career information delivery system
    - *State Health Careers Guidebook*

26. What are the licensure requirements for a psychologist?

    Resource:
    - State career information delivery system
    - State psychological association
    - *State Directory of Licensed Occupations*

27. What is an engineering operations analyst and what kind of training do such analysts need to have?

    Resource:
    - State career information delivery system
    - *Occupational Outlook Handbook*
    - *Dictionary of Occupational Titles*

28. What is the job outlook for broadcasting and where can I get training in the Tidewater area?

    Resource:
    - State career information delivery system
    - *Occupational Outlook Handbook*

29. I am in the ninth grade and am interested in general information about construction work.

    Resource:
    - *Exploring Careers* (U.S. Department of Labor, 1979)

30. What are some nontraditional jobs for women?

Resource:
- State career information delivery system
- *Occupational Outlook Handbook*
- Women's Bureau, U.S. Department of Labor, Washington, DC
- *Military Career Guide*

31. What courses should I take in high school to prepare me to be a secretary?

Resource:
- State career information delivery system
- *Exploring Careers* (U.S. Department of Labor, 1979)

32. What is the outlook for wastewater treatment operators?

Resource:
- State career information delivery system
- *Occupational Outlook Handbook*

33. I'm making a career transition from military officer to a civilian and am interested in working for the state government. Can you give me any information?

Resource:
- Local office of the State Employment Service
- *From a Military to a Civilian Career*, by R. Petit (Maron Publications, Clinton, MD, n.d.)
- Military Occupational and Training Data

34. How many people are employed as physicists?

Resource:
- *Occupational Outlook Handbook*
- U.S. Census Bureau data

35. Where can I get career counseling in my area?

Resource:
- *Directory of Counseling Services* (International Association of Counseling Services, c/o AACD, Springfield, VA)
- Local community colleges
- Yellow Pages of telephone book
- Local office of State Employment Service

36. What are the salary expectations for a systems analyst in the state capital?

Resource:
- State career information delivery system

37. What do computer operators do?

Resource:
- State career information delivery system
- *Occupational Outlook Handbook*
- *Dictionary of Occupational Titles*
- Commercial occupational briefs and books
- *Military Career Guide*

38. What are the requirements for an industrial hygienist?

Resource:
- State career information delivery system
- *State Health Careers Guidebook*
- *Occupational Outlook Handbook*

39. Where can I find Federal job openings listed?

Resource:
- Nearest Federal Job Information Center
- "Federal Career Opportunities" (Federal Research Service, Inc., Box 1059, Vienna, VA)
- Office of Personnel Management, Washington, DC 20415

40. Where may I find opportunities for working on an Arizona Indian reservation?

Resource:
- *Directory of Federal Personnel Offices* (Office of Personnel Management, Washington, DC 20415)
- VISTA, Washington, DC 20526
- Bureau of Indian Affairs (U.S. Department of Interior, Washington, DC)

41. What are the annual earnings of physicians?

Resource:
- State career information delivery system
- *Occupational Outlook Handbook*
- Commercial occupational briefs and books

42. What is the outlook for robotics?

Resource:
- *Emerging Careers: New Occupations for the Year 2000 and Beyond*, by S. Norman Feingold. (Garrett Park Press, Garrett Park, MD, 1983)
- *Careers Tomorrow*. Edward Cornish (ed.). (World Future Society, Bethesda, MD, 1983)

43. What is required of a flight attendant?

Resource:
- State career information delivery system
- *Occupational Outlook Handbook*

44. Where are specific job openings listed for teachers?

Resource:
- Local school systems
- College placement offices
- State department of education in state capital

45. How do I apply for a midlevel Federal job?

Resource:
- *How to Get a Federal Job or Survive a RIF*, by D. Waelde. (Fedhelp Publications, Washington, DC. 1983)
- Federal Job Information Center

46. Where can I find information about working on a cruise ship?

Resource:
- Local travel agent
- Phone books of major port cities

47. Where can I find addresses of companies in Danville? I am interested in retail marketing.

Resource:
- Yellow Pages of Danville phone book
- Local Chamber of Commerce
- State industrial directory (local library)

48. What is the address of the CIA?

Resource:
- *Directory of Federal Personnel Offices* (Office of Personnel Management, Washington, DC 20415)

49. How do I get a real estate license?

Resource:
- *State Directory of Licensed Occupations*
- State career information delivery system

50. I have just graduated from a women's college. What source would help me find out about positions with the government in Washington, DC?

Resource:
- *How to Get a Job in the Federal Government* ($4.50—Government Printing Office, Washington, DC 20402)
- Inter-Agency Minority & Female Recruiters Association Career Assistance Center; P.O. Box 23962; L'Enfant Plaza Station; Washington, DC 20024

Career Counseling Case Studies

Using labor market information (LMI) in these career counseling cases utilizes actual situations, as did the preceding questions. The following case studies show the establishment of a counseling relationship as well as the orderly fashion in which a case might proceed. The reader will see how LMI is brought into counseling as opposed to a strict information-giving situation. Note the wide variety of resources used as part of the natural flow of the counseling process. A summary of the sources is found at the end of each case.

Case Study No. 1

Background

Ted, an 18-year-old high school senior, approached his guidance counselor and asked to be given a pass to see her later in the day. He wanted to talk with her about his dropping out of school and taking a full-time job. Ted comes from a family in which both parents work at the local electronics manufacturing plant. His only brother had graduated from high school 2 years ago and enlisted in the Navy.

Session 1: The Career Counseling Phase—Beginning

Goals. The goals are as follows:

- To listen to and understand Ted's concerns
- To begin generating, with Ted, some career alternatives
- To encourage Ted to continue his active thinking and planning

Elements. The major elements are as follows: relationship development and problem/goal identification.

Counselor preparation. Review Ted's student file prior to his visit. Pay particular attention to notes from previous advisement sessions, previous grades, and any other relevant information.

Interview session. Ted came to the guidance office during his morning study hour and went directly into his counselor's office. Ted told her that he was very worried about his future. He said he wasn't sure if he wanted to stay in school and finish out the year or take a job recently offered to him by a local auto body shop owner. The counselor listened intently as Ted indicated his growing lack of motivation in school, his inability to complete homework assignments, and his family's financial trouble. He was wondering whether, by getting a job and making some money, most of his worries would be over.

Ted had spoken with his mother the previous evening but was afraid to say anything to his father because he knew exactly what his father would say. His father had always encouraged both his sons to finish school and, if possible, go on to college. Ted's mother didn't tell him "no" but encouraged him to stay in high school for the remaining 8 months until graduation.

The job offered to Ted was one he had hoped to get the previous summer. He had worked for the same company during his junior year as part of a cooperative education program and had enjoyed it so much that he applied for a full-time job that became available at the beginning of last summer. Although a more experienced man was given the job, the owner, Mr. Peters, had told Ted he could use the shop's tools and equipment to work on his own car. Auto body work was something Ted enjoyed doing, and he felt he had considerable skill in this area. More than once he had considered this as a full-time career field.

The counselor discussed with Ted the immediacy of the decision. Ted thought that Mr. Peters wanted somebody to start soon but said that he would ask Mr. Peters tomorrow. The counselor encouraged Ted not to make a hasty decision and to give himself some time to weigh the options and then make a well-thought-out plan.

Although disappointed by not being given a "yes" or "no" answer, Ted agreed to meet with the counselor a few times before making up his mind. Ted's counselor told him that making a good decision was going to take patience and some hard work. He agreed to do his best. Together they made a list of things Ted would do before they met again: (1) talk with Mr. Peters to find out how much time he had to make a decision and (2) get a little more information about some of the career fields he had been considering.

Before leaving, Ted expressed some concern as to his father's feelings about his upcoming decision. He wondered if he should tell him now or just go ahead and make the decision without

telling him in advance. They agreed that no easy solution was possible and decided that telling his father was the best thing to do, but when and how to do it would still need to be determined. They decided to discuss it again at their next meeting in 2 days.

As Ted left, the counselor showed him the career information library she had been developing next to her office. She pointed out two books in particular that she wanted him to use in getting more information about potential career fields: the *Occupational Outlook Handbook* and the *Guide for Occupational Exploration*. To illustrate how helpful these books could be, the counselor had Ted look up one of his interest areas, auto body repair, and skim the information in the *Occupational Outlook Handbook*. He found the occupational information for auto body repairers under the major cluster called "mechanics and repairers," and then under the subheading, "vehicle and mobile equipment mechanics and repairers." The two-page description was next to descriptions of similar kinds of occupations, automobile mechanics and aircraft mechanics. He quickly skimmed the material and indicated he was particularly interested in reading the sections on "employment" and "training, other qualifications and advancement."

The counselor also had Ted take a quick look at the *Guide for Occupational Exploration*. The format was quite different than the OOH, and it took a little help from the counselor to understand its organization. Once understood, Ted found a long list of auto-body-related job titles clustered under the work group heading of "craft technology 05.05" and more specifically under the subgrouping called "metal fabrication and repair 05.05.06." The counselor took a minute to explain the six-digit coding system that would help Ted use the book on his own. She also showed Ted that in addition to the listing of occupationally related job titles, this reference book provided information about interests, aptitudes, adaptabilities, and other characteristics for each occupational area.

Because Ted had taken the *Armed Services Vocational Aptitude Battery* (ASVAB) earlier in the year and had discussed the results with the counselor, she let him check out the *Military Career Guide*, which provides extensive information on what military occupational specializations are available to service personnel and to which civilian occupational areas these skills will transfer. Ted found that the military services also have some jobs related to auto body work. Although each branch calls them by a different title, they generally have the same prerequisite academic background, physical requirements, and experience needed to enter that field. The counselor also showed Ted additional civilian training information relating to auto body repair contained in the state career information delivery system. Although some of the state information overlapped with other reference books, it included local and regional job vacancy projections along with a comprehensive list of training opportunities in the state. Ted checked out these materials and agreed to meet with the counselor in 2 days after completing his related tasks.

Case analysis and conceptualization. Ted is typical of many students who are not feeling motivated or successful in school and who consider dropping out when something new or exciting becomes available. The fact that Ted came to the counselor was a sign that he knew it was a serious decision, one not to be taken lightly. Establishing a time frame with Ted allowed the counselor to do two things: (1) it promoted the idea that good planning takes time and (2) it removed some immediate pressure from Ted, who was thinking he had to decide that same day.

Having reviewed Ted's file in advance, the counselor knew that Ted's grades had been falling, yet his test scores were generally average or above average.

Motivating Ted to take an active role in making this decision started by having him look up career information in these reference materials. The *Occupational Outlook Handbook* would provide a good, general overview to general career areas and specific occupational groupings, and the *Guide for Occupational Exploration* would help him see how his career interests, aptitudes, and temperaments translate into potential career fields. This procedure would also let them use the *General Aptitude Test Battery* (GATB) scores that Ted had taken the previous year as a way of cross-referencing possible occupational clusters. Ted's continued interest in the military also promoted the counselor to provide basic information about military occupational specializations and the civilian jobs they might lead to upon discharge from the service.

In general, the counselor hoped to show Ted that career planning was not an activity limited to the counselor's office but was something he could learn to do on his own once he understood the process and the availability of good career information.

Session 2: Career Counseling Phase—Middle

Goals. The goals are as follows:

- To review what Ted had accomplished on his own since his first visit
- To share with Ted his previous interest inventory and aptitude scores
- To discuss Ted's concern over telling his father and develop some strategy for Ted to implement

Elements. The major elements are as follows: problem/goal clarification and specification.

Counselor preparation. The counselor carefully reviewed Ted's student file and analyzed the results of various tests that Ted had taken as a high school student. She also checked with Ted's current instructor (with Ted's permission) as to his current progress and his ability to complete the covered work.

Interview session. Ted came to the second interview session with a worried look and reported that Mr. Peters would be needing a replacement a week earlier than he had anticipated. Ted was worried that he didn't have enough time to make a good decision and was assured by the counselor that they would do everything possible to make the decision easier within the reduced time schedule. She reinforced the idea that the most important consideration at this time was to continue making progress by gathering good information on the alternatives available.

Ted indicated he had visited the career information section of the guidance office after school the previous day and had found the *Occupational Outlook Handbook* and the *Guide for Occupational Exploration* to be quite helpful in finding basic information about the career areas he had been considering. From what he read, additional training or education seemed very important in finding initial employment and advancing within the career fields.

He also found the *Military Career Guide* to be reassuring in that it provided job descriptions in the various branches that were very similar to the kind of work he enjoys doing. He was also quite pleased that it had basic information about the armed services in the beginning of the book that informed him of the steps in the enlistment process, training programs available, and other general characteristics of military life.

The counselor then discussed with Ted the importance of interests and abilities in making a sound career decision and shared with him the test scores he had seen earlier in the year. The interest inventory indicated strong interests in the "mechanical," "leading/influencing" and "business detail" areas. His aptitude scores were generally average on the GATB except for the mechanical area, which was in the 90th percentile. The ASVAB results indicated Ted had a very high score on the Mechanical and Crafts composite. The counselor also described the Holland categories to Ted and together they agreed that the "Realistic" category described him best, with the "Enterprising" category being the next closest description.

Despite Ted's success finding summer and part-time employment after school, he was worried about his ability to land a good long-term job. The counselor showed Ted some additional materials from the U.S. Government that described future job trends and general employment projections. The *Labor Market Information Newsletter* and other labor market publications provided Ted with a general view of what would be available in the future. In general, employment for auto body work would be steady in the future with no predicted increase or decrease. Opportunities in the military for auto body workers would also be steady.

Ted was committed to telling his father soon, that same night if possible, but was frightened of what his father's response might be. With the counselor, Ted practiced different ways of telling his father, and after using several different approaches decided on one specific way of communicating his present situation. They ended the session by setting up a time to meet the next day to discuss his father's reaction.

Case analysis and conceptualization. Ted was using the resource material to good advantage, but had not researched the occupational areas in any depth. However, he did find useful information that led him to make the conclusion that advancement within occupational fields was in part dependent on the amount of training and/or education received.

It was obvious during the interview that Ted was continuing to question the advantages of going to work full-time. He now saw the advantages of leaving school as short-term ones and wondered where the job at Mr. Peter's business would eventually lead. His interest in becoming a military officer, business owner, or other type of manager also led him to favor staying in school.

Session 3: Career Counseling Phase—Ending

Goals. The goals are as follows:

- To discuss the previous night's results
- To look again at the alternatives available to Ted at this time
- To discuss the basic strengths and weaknesses of each alternative
- To discuss the "next steps" in making a decision

Elements. The major elements are as follows: problem/goal resolution and next steps.

Counselor preparation. None is required.

Interview session. The counselor explored with Ted what were now seen to be the options in front of him, which were as follows:

- Stay in school and go into auto body repair after graduation
- Stay in school, then go to a technical school with auto body repair training
- Stay in school and enter the military upon graduation
- Stay in school, then try to get into a community college and take business courses in hopes of going into business for himself
- Quit school now and take the job with Mr. Peters

As they discussed each option's strengths and weaknesses, it was obvious that quitting school had many disadvantages and that finishing high school would be difficult but important. The next question was to explore the options associated with staying in school. Ted was concerned about his study habits and lack of motivation. After exploring reasons for both, the counselor agreed to continue working with Ted on these concerns.

Based on the information he read in the career resource books, Ted didn't believe that going into auto body work without any additional training would provide the job security or chances of advancement that were important to him. This led to a discussion focusing on the pros and cons of going to a vocational-technical school or attending the local community college.

As they discussed these options, the counselor pointed out how the time frame had changed from a decision that needed to be made almost immediately to a decision that now could be made over a period of a few months when new information gathering and career planning could take place. Ted was relieved that he really wouldn't have to make a final decision for a while, thus giving him time to talk with his family and the admissions officers of the schools he was considering. It would also give him time to talk at length with the local military recruiters and his brother about the different options associated with military service.

Together with the counselor, Ted decided to use the next few months to locate information about the schools and their curricula, talk with the schools' placement officers about their ability to find employment for their students, and then to the schools' academic advisors to identify possible courses.

He also planned to visit the recruiting office of each armed services branch and receive as much information as possible on the different options. He planned on using the *Military Career Guide* throughout the remaining months of high school in weighing the programs offered by each branch. The recruiters would help him in this process. He was especially interested in his chances of becoming an officer with his educational background and what he could do to improve his chances.

Ted arranged to talk with the counselor later in the semester to discuss his career plans again. The counselor encouraged Ted to continue his career planning and emphasized that career development is a never-ending process.

Case analysis and conceptualization. The information research paid dividends by providing Ted with vital information used in making his decision. The occupational descriptions helped him compare his interests and skills with various career fields; the employment projections helped him plan with some hope that a job in auto body repair would be available to him upon completion of his training; and the training/education/advancement information helped him to plan for his preparation to enter his chosen field. Because advancement in his career was very important to Ted, the information helped him to see that without additional training or education, his chances of owning his own business were limited.

Establishing a new time frame with new goals helped Ted to put his dilemma in perspective. For once he felt he had some breathing room and had time to research his options and eventually narrow them down even more. The immediate challenge for Ted, and for those supporting him at home and at school, was to change his attitude towards school. The counselor agreed to work with him on his study skills and general motivation; however, it would be Ted who would need to take on the responsibility of finishing his assignments and completing all graduation requirements.

The counselor and Ted ended on a positive note, even though a final, specific decision regarding his future career had not been made. Having the opportunity to check in with the counselor on a regular basis provided some continued involvement with the counselor. A general review of his situation was scheduled later in the year and was an ideal time to evaluate the decision not to leave school. The career resource books were constantly available to him as he learned that current and accurate information was indispensable in making good career decisions.

Summary of Resources Used

- *Military Career Guide*
- *Guide for Occupational Exploration*
- *Occupational Outlook Handbook*
- *Armed Services Vocational Aptitude Battery*
- *General Aptitude Test Battery*
- *Labor Market Information Newsletters*

Case Study No. 2

Background

Maria, a 20-year-old woman from a large urban area, is a sophomore at her state university, where she is having difficulty making a career decision. She is an above-average student who already has switched majors twice, from political science to history, then to pre-law. A first-generation college student, Maria feels that her parents are losing patience with her lack of decidedness and are considering having her transfer to a local community college until she comes up with a better career plan.

She came to the university's career development office and made an appointment to see one of the career counselors.

Session 1: Career Counseling Phase—Beginning

Goals. The goals are as follows:

- To establish rapport
- To understand her "expressed" concern (i.e., what does "undecided" mean?)
- To gather background and related information
- To discuss the immediacy of her concern and a time frame within which to work
- To identify what decisions are to be made
- To discuss what role/services are appropriate from the counselor and career center

Elements. The major elements are as follows: relationship development and problem/goal identification.

Counselor preparation. None is required.

Interview session. Maria came in to see the counselor between classes and indicated an initial hesitation about talking with him. She didn't want to be perceived as unable to make "easy" decisions, such as choosing a major, and wanted to be seen as independent and confident.

The counselor worked hard at developing some rapport by not focusing on her problem, but rather on getting to know some things about her. They discussed her family and prior educational background and talked specifically about the pressures on students whose parents had not attended college.

The counselor talked of his experience working with "undecided" students and assured her that her indecision was a very common occurrence among college-age students. He told her that the first step was to begin understanding what is meant by "undecided," since there are many different reasons why people may feel this way (i.e., lack of information about potential jobs, not having any particular skills to market to employers, lack of knowledge about important work values, etc.).

Maria stated that she was not sure why she couldn't decide and wondered if it could be a combination of factors. One fundamental factor they discussed was lack of job experience, thus providing a weak link between what she had heard about an occupation and what actually takes place on the job. She also mentioned the confusing messages she was receiving from her parents and other influential people in her life. Most of them wanted her to pursue a career in teaching, since that was a field many women entered and one that would allow her some mobility when she married. Their encouragement to enter a traditionally female-dominated field was understandable to Maria, yet her inclination was to enter a nontraditional area where she could demonstrate her independence, confidence, and progressive spirit.

The counselor asked Maria what she would do if she had no limitations placed on her (i.e., ability, opportunity, time, parental expectations). Although this was hard at first, Maria replied with a smile and described her dreams of being a wealthy businesswoman who owned a nice car and home and who gave the appearance of being an expert in her field. She also had dreams of being a physician, probably a pediatrician working with ill and injured children. When asked why these were only fantasies and not taken seriously, Maria said she doubted her ability and lack of opportunity to enter these fields.

Together, they listed the specific decisions that needed to be made. These included: what classes she should take next semester; what major she should pursue; what kind of job she wanted after graduation; how she could manage to please her parents yet have them understand the difficulty of her decision.

Near the end of the first meeting, the counselor asked Maria when she wanted to make a decision about her career. She hoped to make it soon, perhaps within a few days, in order to begin selecting classes for the next semester. The counselor then discussed with her the importance of setting a realistic time frame in order both to take off the immediate pressure of making a decision and to provide enough time to do the kind of planning needed to make a good decision. Together they came up with a tentative goal of the Christmas holidays (just 2 months away) as the time when some decisions regarding college major, classes, and eventual career goal might be reached.

Before the next appointment, the counselor asked Maria to complete a values exercise on a computerized career information delivery system located in the career center. This would help her begin identifying those values that were most important to her in her life in general and in a job more specifically. He also encouraged her to begin a journal or keep notes in a small notebook relating to her career search, with the first entry being the beginning of a list of possible career fields worth considering. He told her to list every occupation she had ever thought of, those her parents or other people had suggested to her, and fields that she might consider in the future.

Case analysis and conceptualization. The counselor saw Maria as a very bright and verbal undergraduate who was doing very well academically at the university, yet was unable to settle on one career field. Her decision-making style seemed to be rather impulsive, with little planning or thought going into her two moves from major to major. Although receiving some support from her parents, she was feeling some pressure to make up her mind quickly. Although she was not sure what fields she needed to explore in more depth, she had very little difficulty coming up with her career fantasies. Both fantasies involved a high degree of status and prestige and a significant level of "expertness." The counselor felt that Maria had a general lack of information about herself (values, skills, interests) and also about what is available in the work world. Using Super's career development theory, the counselor put Maria into the "exploration" stage, where she could still examine herself and explore occupational areas. It was important, therefore, that a realistic timetable along with appropriate planning activities be encouraged so that a planned decision could be made rather than one that was expedient and again temporary.

Session 2: Career Counseling Phase—Beginning and Middle

Goals. The goals are as follows:

- To further clarify reasons for Maria's undecidedness
- To expose her to and involve her in a career development model and to identify what barriers (self-knowledge and/or external knowledge, i.e., world of work) she is confronting
- To begin understanding the way she conceptualizes the work world (i.e., stereotypes, reasons for rejecting areas, and reasons to consider areas)
- To expose her to available career materials and the importance of good information in making decisions
- To continue building trust and rapport

Elements. The major elements are as follows: problem/goal clarification and specification.

Counselor preparation. The counselor was planning to use a card-sort technique to achieve the third goal, so he reviewed the card sort manual. (The card sort he would use would have 90 cards with occupational titles on one side of each card and basic career information on the back of each card—the information was taken from the *Dictionary of Occupational Titles*, the *Occupational Outlook Handbook*, the *Occupational Outlook Quarterly*, and the *Guide for Occupational Exploration*.)

Interview session. When Maria returned for her second appointment, the counselor shared with her some material (*Guide for Occupational Exploration*) describing the process that most people go through in developing their career identity. As they talked, Maria was able to relate to various stages she had already completed and pinpoint a few areas she felt were incomplete and causing her some problems. She identified the "information about the world of work" stage as one she is just beginning to move into and the stage of "identifying values, interests, abilities" as one she has only superficially completed. She showed the counselor her career journal and the list of career areas listed. Although not a long list, it contained considerable variety with no clear common thread.

The counselor introduced her to a card-sort technique that he indicated would provide both of them with basic information on how she is dealing with her career plans. The occupational card sort he used had occupational titles on one side of the card and a brief overview of the occupational area on the reverse side (i.e., job description, education required, typical employers). She was asked to place each card into one of three piles: "like" for those occupations that were appealing and of interest, "dislike" for those that were unattractive and of no interest, and "neutral/undecided" for those that clearly were not in either of the other two piles and had both positive and negative aspects to them. Maria took 15 minutes to sort the cards, after which she and the counselor discussed the results. The "dislike" pile contained many occupational areas that she felt had too much "routine" work or that required considerable strength or outdoor work. The pile also represented many areas that women traditionally enter (i.e., secretarial, office clerks, sales clerks). The "neutral/undecided" pile contained occupations that had factors she viewed positively (status, good income, leadership) but also some factors that were not so appealing (too much additional schooling needed, not "helping" people). The "like" pile had occupations that were for the most part professional, managerial, or medically related. There were a number of teaching areas also included in this stack.

When finished discussing the different themes running through her cards, the counselor asked Maria to select the top 10 areas that appealed to her right now. He told her not to be influenced by anybody else and let her career fantasies take over. He then had her rank those from 1 to 10, based on level of attractiveness. When completed, he wrote these down, then asked her to pretend she was her mother and father and to pick out the top 10 occupations they hoped Maria would consider, then rank them from 1 to 10.

The rankings were significantly different and sparked considerable discussion between Maria and the counselor. Maria felt that her parents would have prioritized "business teacher," "accountant," and "secretary." On the other hand, her top three included "business manager," "hospital administrator," and "lawyer." Maria stated that her parents were encouraging her to enter relatively traditional fields for women and those they thought offered job security. Maria felt her choices were based more on her interests in helping other people, leadership opportunities, and being her own boss.

Upon completion of the card sort, the counselor took Maria to the university's career resource library and gave her a short tour. He was particularly interested in having her become familiar with the "career exploration" area of the center that provided current and accurate information on specific career areas (i.e., job descriptions, work environments, salary ranges, job market outlook, and education required). The information was not only in book form, but a career library of audiotapes and filmstrips was also available. The reference books that he strongly encouraged her to use included the *Occupational Outlook Handbook* (OOH), the *Dictionary of Occupational Titles*, selected readings from the *Occupational Outlook Quarterly*, and the *Guide for Occupational Exploration*. He pointed out some specific parts of the books he hoped Maria would find helpful, including the two-page occupational descriptions found in the OOH and an article on "emerging jobs in the nineties" in the *Occupational Outlook Quarterly*. These materials, along with the career information files, audiotapes, and filmstrips, would provide basic information on the occupational areas Maria wanted to explore.

Before ending the session, the counselor gave Maria another "homework" assignment dealing with one of the reference books, the *Occupational Outlook Handbook*. He showed her the table of contents, which listed over 250 occupational titles, then instructed her to read down a copy of the list and put a checkmark next to those occupations with which she was unfamiliar and a plus next to those that seemed to be relatively appealing. When finished, he told her to take each occupation she checked and quickly skim the information inside the book to get a general idea of what that occupation was like. He also told her to skim the information on those occupations by which she put a plus. All occupations that were still appealing after this research would be included in her career journal.

Case analysis and conceptualization. Maria was relieved at the beginning of the session to hear that being "undecided" was a common development in most people's lives. After looking at the career development process, she began to understand that to focus on one field now before broadening her perspective might be ill-advised. She also began to understand the difference between her parents' hopes and her dreams and committed herself to be more open with them about her ideas and plans. She was also quite pleased with the information coming from the card sort. Sorting the cards in the "dislike" category helped her realize the reasons she was not choosing certain occupational areas. Looking at her "undecided/neutral" pile illustrated to her the pull-and-tug of certain factors. Focusing on the "like" pile, then ranking them, helped her to see that many of the careers had common threads and perhaps she wasn't as confused as she had feared. During the tour of the career resource center, Maria was relieved to see other students looking at career materials and that she truly wasn't the only one not knowing exactly what to do. She appeared motivated to delve into the resources and complete the "homework" assignment so she could begin adding more occupations to her journal list. Overall, the counselor felt Maria was making fine progress, despite her attempts to make a quick decision before all the information was consulted. Someone less motivated or with lower reading skills may not have responded to these tasks as well. The one area of needed improvement that became increasingly clear in Maria's situation was her lack of job experience and exposure to the world of work. This concern was the focus of a future session.

Session 3: Career Counseling Phase—Middle

Goals. The goals are as follows:

- To continue developing a list of occupational possibilities
- To begin grouping these occupations into general clusters or areas

- To come up with key questions in order to compare these occupational areas
- To review the "homework" assignment
- To identify additional resource material to supplement the reference material already being used

Elements. The major elements are as follows: problem/goal specification and problem/goal resolution.

Counselor preparation. The counselor knew that Maria would be wanting some specific information on job projections for the future, so he reviewed the available reference material, including the *U.S. Industrial Outlook*, *Occupational Projections and Training Data*, and labor market information from the Bureau of Labor Statistics.

Interview session. Maria came to the interview session with an expanded list of career possibilities. She had completed the "homework" and had read or skimmed the material describing over 20 fields with which she was unfamiliar and 15 other fields she had previously considered. As a result, she added two new areas (health educator and sociologist) to her list and deleted three areas (hotel management, social work, and psychologist). Together, Maria and the counselor worked on making some generalizations about the areas still included on her list and came up with three: business management, health services, and teaching.

The counselor then helped Maria come up with the kinds of questions she could ask of each occupational area in an attempt to find out how much each would satisfy her values and interests. The following questions were developed: (1) What is the employment outlook? (2) How much "people-contact" is there? (3) How much does one get paid? (4) Are you "helping" people? (5) How much education is needed? (6) Are there many women or minorities in the field? (7) Who typically employs people in this profession? and (8) How much are verbal skills needed in this field?

Maria and the counselor went back into the career resource center to begin finding answers to her questions. The counselor pointed out various resources that would help her, including those that used the *Standard Industrial Classification System* and the *Standard Occupational Classification System* in categorizing occupations. Through these she could not only look up those areas of interest to her but also see occupations that were closely related to the ones she was considering.

Maria was most interested in looking up information on labor market trends, so the counselor showed her the section of the career center dealing with labor market projections. He particularly showed her some of the basic reference materials, such as the *U.S. Industrial Outlook*, *Occupational Projections and Training Data*, the labor market information newsletters, and the *Occupational Outlook Handbook*. She took a few minutes to look over the materials and commented that the computer fields certainly were looking positive for the future.

Case analysis and conceptualization. It was evident that Maria was beginning to understand the concept of career development and could now place herself within the process. She showed more patience at working towards her goal of making some decisions and could see that decisions made at one time affected later decisions in life. She was also encouraged by the emergence of three major occupational areas of greatest interest. In terms of Holland's personality and work environments, the counselor saw Maria as most closely resembling the "Enterprising" and "Social" types. Her vocabulary was beginning to include such words as "values," "interest areas," "career clusters," and other terms that are helpful "handles" in describing her ideas and situation. Maria was also becoming quite familiar with the career resource center and found it to have a wealth of information that would be important to her making a decision.

Although making strong progress in knowing herself better and becoming familiar with the work world, Maria was still putting pressure on herself to make the "right" decision and had put complete faith in the counselor and the process in making a 100%, satisfaction-guaranteed plan. The counselor wanted to support her optimism and enthusiasm yet help her appreciate that any decision would need to be tested and perhaps changed.

Session 4: Career Counseling Phase—Middle

Goals. The goals are as follows:

- To review with Maria the results of her career information research
- To discuss the importance of "field-testing" occupations
- To discuss "information interviewing" and to begin setting up contacts

Elements. The major element is as follows: problem/goal resolution.

Counselor preparation. The counselor gathered some information about the process of "information interviewing," which included sample ways of contacting resource people, using "networks," and a list of topic areas that might be used during the interview.

Interview session. With the hope that today would be the day to make the "final" decision, Maria summarized her findings for the counselor: (1) education careers weren't able to meet her income or prestige requirements; (2) most of the science careers didn't satisfy her need to use verbal skills and required considerably more training than she wanted to pursue; and (3) business careers that were "number"-oriented (i.e., accounting and finance) didn't fit her need to "help" people.

She was delighted, however, that some new career fields, as well as some old ones, continued to show promise. Hospital administration and other health management careers seemed to fit almost all of her categories, as did such business careers as marketing and personnel management. She added these areas to her journal list of possibilities and wanted to narrow them down even further, even to the point of picking the one best career field for her.

Before she pursued this much further, the counselor discussed with her the importance of "testing" these fields to see if they really would be satisfying. Just as education majors "test" their field via student-teaching, it may be very important for her to check out the fields more closely. He also discussed the myth of the "right" career and the subsequent danger of not considering alternatives.

Together they brainstormed ways of "testing" career areas and came up with a long list that included: taking classes, finding a summer job, talking with people in a particular field, and finding a part-time job during the school year. The counselor brought to her attention the concept of "internship" and a program the career center offered where university alumni served as career advisors to students considering their career area.

Maria was most excited about those possibilities that could happen right away before the next semester—the alumni contact and a short internship over the holidays. Together, they looked over the internship and alumni information located in the career center and identified a person who had graduated a few years ago and was now working at a local hospital where she was the assistant director for human resources management. They also found an alumna who was the sales

manager for a large corporation that manufactures pharmaceuticals. These two contacts would provide a close-up view of the career areas Maria was considering.

To help her prepare for the interviews, the counselor discussed with her how to approach these people and what kinds of questions were appropriate to ask. They agreed to meet together after the interviews were completed, just prior to the beginning of the next semester's classes.

Case analysis and conceptualization. Both the counselor and Maria were beginning to feel as if progress was being made. She continued to be motivated and became excited when new career areas became possibilities. Beginning to focus on specific occupational areas was an appropriate step, because Maria had done a relatively good job of broadening her options first. Not only had she come up with three major areas of interest (health services management, marketing and personnel management), but also she was beginning to see combinations of these fields as possibilities (i.e., pharmaceutical sales, personnel management in a health facility). Information interviewing was a natural activity for Maria, because it gave her the opportunity to use her well-developed verbal skills.

The concern felt by the counselor in regards to Maria's need for the "perfect" career was minimized when Maria discovered quite on her own that all three of the areas she was considering would satisfy her basic needs. The decision to discontinue the sessions until after her information interviews also made good sense, because Maria needed time to focus on her upcoming final examinations and to discuss her ideas with her parents during her holiday vacation.

Session 5: Career Counseling Phase—Ending

Goals. The goals are as follows:

- To review the results of Maria's information interviews
- To help make some tentative decisions and strategies regarding her career choice
- To begin selecting appropriate classes and other experiences in support of her decision
- To end the regular sessions and plan a meeting in a few months to review her decision and make any adjustments or changes

Elements. The major elements are as follows: problem/goal resolution and next steps.

Counselor preparation. None is required.

Interview session. Maria was eager to fill the counselor in on her experiences over the holidays. The two information interviews worked out well, and her conversations with her parents went better than anticipated. Her visit to the hospital not only provided information on what the human resources offices performed, but also the alumna took her around to other parts of the hospital, where she introduced Maria to administrators of the various departments. The information meeting with the regional sales manager of a manufacturing company also went smoothly although Maria felt the information was somewhat limited because the alumnus couldn't spend much time with her.

Maria was unquestionably most attracted to the hospital work environment and considered quite a few of the departments as potential career areas. The people she met there encouraged her

to pursue a bachelor's degree in hospital administration or what some colleges call health services management. They also informed her that a master's degree in the same area would make her more employable and give her some area of specialization.

Maria was struck by the amount of paperwork done by marketing professionals and the degree to which they work by themselves in preparing for their talks with clients. The verbal, persuasive part of the alumna's job was appealing; however, the extent to which she was alone in an office or a car was not very attractive. The only thing Maria did take notice of on a positive note was the salary that many of the marketing professionals made.

With the counselor, Maria discussed the pluses and minuses of these fields and how representative the interviews were of their respective areas. Maria admitted that the marketing information she received may not have been representative of all sales and marketing fields; however, she was not attracted enough to the field in general to want to pursue it further. She would much rather focus her attention on the career field of health services management.

Because the university was requiring her to choose a major before registering for classes in a few days, Maria was content to make her mind up right away and choose this field as her major. The counselor discussed with her the next steps needed to enroll in that major and helped her get in touch with the undergraduate advisor in that department, who would assist Maria with signing up for classes.

Both Maria and the counselor agreed that she was well on her way now and discussed what she might experience in the future regarding her career choice (i.e., doubts about making the right decision, challenges in her coursework, finding another field more attractive). They agreed to meet again at midsemester to review her decision and make any adjustments or changes.

Case analysis and conceptualization. The information interviews Maria conducted were very informative and powerful in influencing her decision. The process took advantage of her verbal skills in making a better assessment of what the career areas were really like. She came away from them very focused and needed to be cautioned as to the danger of being too "decided." Talking to campus officials regarding the transfer of majors and selecting classes was the next appropriate step and ended the counselor's role as primary "helper." The decision to check back with each other at midsemester allowed the relationship to continue as well as provide a mechanism for feedback to the counselor and the opportunity for Maria to discuss any new concerns.

Summary of Resources Used

- *Occupational Outlook Handbook*
- *Dictionary of Occupational Titles*
- *Guide for Occupational Exploration*
- Computerized career information delivery system
- Filmstrips
- Networking
- Audiotapes
- Occupational card sort
- Internship/co-op information

Case Study No. 3

Background

Paulette felt that she "fell into" teaching as a career. Having grown up in a traditional family, she had not been exposed to many other fields. Teaching, social work, and nursing were seen by her family as a way out of the blue-collar life of many of her neighbors. The career made sense at the time. She felt it was important to be a role model for young people. Teaching would provide an excellent vehicle for doing so. Paulette's strength was communication. She liked teaching concepts, and working with the students on an individual basis was especially rewarding. For the first few years, teaching seemed to provide what Paulette needed in a job.

After her marriage to Michael, however, Paulette moved away from the medium-size town in which she had been working and moved to a large metropolitan city. She got a job in a large high school. Her experience was not nearly so positive. Basically, Paulette felt unappreciated and unsupported by her administration. She had difficulty with the students—especially around the issue of discipline. When she attempted to take a strong stand, she felt that her principal didn't back her up. The students were also apathetic. Far from the view of herself as a professional role model, she felt she got little respect at all. On and off for 4 years, Paulette had considered leaving teaching. But then summer would draw near and she would rationalize that maybe next year would be better. It wasn't, until financial crisis hit—Michael lost his job—that Paulette seriously considered career change. They simply could not make it on her salary. Now would be a good time to change—but to what?

Paulette had heard a woman talk at one of her church meetings about changing careers. The woman worked for a community agency that helped people plan careers. She decided to call and schedule an appointment.

Session 1: Career Counseling Phase—Beginning

Goals. The goals are as follows:

- To determine if the goals of client and the goals of her employer are congruent
- To develop the beginnings of a relationship: trust, rapport, sharing
- To make explicit the counselor and client's roles
- To begin the self-exploration process

Elements. The major elements are as follows: relationship development and problem/goal identification.

Counselor Preparation. None is required.

Interview session. Paulette arrived early at the New Horizon's Center. She felt excited, but also a little apprehensive. She had never worked on career planning before, and she was really not sure what to expect. She was hoping that her counselor would be able to test her and tell her what career for which she would be best suited. Perhaps her counselor could identify a career that

would use all her unique skills in a way she had never considered before. As she was waiting, the receptionist encouraged her to browse through some of the resources in the career library. Diane, her counselor, came out to greet her.

Paulette liked Diane from the start. They were both about the same age. Diane asked what precipitated Paulette's visit. Paulette described her dilemma. Diane asked Paulette what she hoped to get by coming to the New Horizon's Center. "Well, I was hoping you could give me a test to determine what I am best at and what I could find happiness in doing." Diane responded that she was not a mind reader and didn't have a crystal ball. She explained that some form of assessment might be a helpful vehicle to start thinking about other career fields but that a test, in and of itself, would not provide a magic answer.

Diane described that the New Horizon's Center helped people examine themselves: their values, interests, abilities, and skills. The Center also had many career information resource materials that would help Paulette learn about career fields. Diane said she could also help Paulette learn about resume writing, interviewing skills, and active job-hunting strategies. The Center could not find the perfect job for Paulette, write her resume for her, or line up job interviews. Those responsibilities were Paulette's. Through this initial conversation, Diane was able to help Paulette understand both what the New Horizon's Center could and could not do. Paulette started to get a clearer picture of what would be involved in this career planning process. It sounded like a lot of work but also like an interesting and revealing way to learn more about herself and the world of work.

With these expectations and roles clear, Paulette and Diane began talking about Paulette's reasons for wanting to leave teaching. Diane helped Paulette organize her thoughts by jotting down "reasons I like teaching" and "reasons I dislike teaching." As Paulette talked, Diane wrote appropriate notes in each column. She also probed, pushing Paulette to be more specific about both her likes and dislikes. For example, Paulette made the statement, "I have a great deal of difficulty with discipline and it is the most unsatisfactory part of my job." Diane probed: "Give me an example of when it was difficult." "What made it difficult?" "Whom did you have to reprimand?" Diane used these specific examples to look for general themes.

Through this conversation, both Diane and Paulette had a clearer understanding of the reasons for change. Diane described that the next session would entail more of this self-exploration process. She emphasized that assessing Paulette's interests, skills, and work values was the first step. Paulette agreed, but was a bit resistant. "I don't have any skills; I teach, that's one skill—but I have never really developed any others."

Diane responded that Paulette was selling herself short. She explained that everyone has skills, but few people can identify these skills exactly. Through two homework assignments, Diane said Paulette would gain more knowledge about her skills. Diane asked Paulette to write about five positive life experiences in which Paulette had felt good about herself and the skills she had used. These experiences could be from her personal or professional life. Diane emphasized that Paulette should make the experiences as specific as possible. For example, Paulette had done some fund raising for her church. Diane asked her to think of one specific fund raiser and what her own specific role had been in the project. After Paulette had written about these five experiences, Diane directed her to use a skill checklist and indicate which skills had been used in each activity.

The second homework assignment was to take Holland's Self-Directed Search (SDS) as a gauge of basic interest patterns. Diane gave a description of Holland's typology and asked that the Self-Directed Search be completed by the next session.

Case analysis and conceptualization. Diane saw Paulette as a bright, articulate woman, who basically needed more information about herself and the world of work. Because Paulette based her initial career choice on little planning and information, she would need a fair amount of structured exploration in order to make a career decision. Paulette was naive about what she had to offer and was even more unaware of potential occupations and career fields.

Session 2: Career Counseling Phase—Middle

Goals. The goals are as follows:

- To examine Paulette's skills assessment
- To examine Paulette's SDS in order to determine basic interest patterns
- To begin a tentative list of possible occupational areas
- To expose Paulette to the career library

Elements. The major elements are as follows: problem/goal clarification and specification.

Counselor preparation. None is required.

Interview session. Paulette came armed with her skill assessment and SDS. She handed them to Diane. Diane handed them back to her. "Tell me what you learned about yourself from these instruments, Paulette." Through this simple exchange, Diane again emphasized a point she had made in the first session—that Paulette was in charge of her own learning and that Diane was a counselor and facilitator, not a fortune teller. Also, by having Paulette present her own self-assessment she was learning the language of how to describe herself, her skills, and her interests. This would be important to her in future information interviews and job interviews.

Paulette was a bit taken back, but she began. From the skill exercise she learned that she did in fact have skills—a lot of them. Through Diane's probing she discovered that there were patterns to these skills. For example, in each of the experiences she had used language and communication skills, organizational skills, and management skills. In three of the five she had used performing and leadership skills. She found that in the experiences she listed, she tended to be working with people in an organizing, teaching, and leadership role. She discovered that she really liked being in charge and being creative in front of people. She liked thinking of unique ways of getting her point across.

Paulette's SDS showed her interests to be social, enterprising, and conventional. She very much agreed with that assessment of herself. She saw herself as verbal, liking to work with people, and often had been described as being persuasive and showing leadership ability. She did possess a number of conventional skills and interests, as well. She saw herself as highly organized and attending well to details.

Diane helped Paulette look for areas of consistency and conflict between the skills inventory and the SDS. By examining both instruments, Paulette got a much better idea of her skills and interests. By examining both, they were able to come up with a list of eight occupations that they both felt were worthy of further exploration. These eight were: director of a social service agency, employment interviewer, YWCA director, training and development coordinator, adult education instructor, personnel director, hotel manager, and insurance salesperson.

After talking about what kinds of information Paulette needed about these career areas, Diane gave her a tour of the career resource center. Diane particularly focused on two resources: the *Occupational Outlook Handbook* (OOH), and the *Dictionary of Occupational Titles* (DOT). Diane gave Paulette instructions on how to use both resources. She also encouraged Paulette to explore occupations in the DOT that were closely related to the occupation on her list of eight.

Paulette's homework this week was to research these eight occupations and to add a few more occupations to her list. Diane instructed her to take notes on each, and to spend some time reflecting how each of these occupations might fit Paulette's values, interests, and abilities. Diane told her that she wanted Paulette to become familiar enough with these occupations that she could report on each at next week's session.

Case analysis and conceptualization. Diane saw Paulette as motivated and hard-working. She also saw her as having enough conventional interests to expect that she would carry through on the rather detailed homework assignment. There had been a rather dramatic change already in Paulette's self-assessment. She had gone from saying, "I don't have any skills" to beginning to be able to articulate a long list of skills and interests.

Session 3: Career Counseling Phase—Middle

Goals. The goals are as follows:

- To review what occupational information had been learned
- To determine what additional questions Paulette had
- To talk about informational interviewing
- To have Paulette begin informational interviewing

Elements. The major elements are as follows: problem/goal clarification and specification.

Counselor preparation. None is required.

Interview session. Paulette had done a good amount of research in the career library. At least on a superficial level, she could describe various occupations. When Diane asked more detailed questions, especially those she felt (from past sessions) would have relevance to her client, Paulette found she needed more information. Diane and Paulette made a list of questions she needed to answer.

Diane asked Paulette to reflect on what, given her knowledge about these career fields, she would like and dislike about each one. From this research and discussion, Paulette did some tentative prioritizing and discarding. The three occupations that kept resurfacing as being of interest were (1) training and development coordinator, (2) adult education coordinator, and (3) hotel manager. Diane showed Paulette both the *Standard Occupational Classification System* and the *Standard Industrial Classification* as ways of looking at these and other occupations. In addition to these paper resources, Diane explained the process of information interviewing.

She also helped Paulette to identify some people who were working in occupations of interest to Paulette whom she could interview for more information. Although Paulette had excellent communication skills, Diane asked Paulette to practice her information interview skills by conducting an informal interview with her. This way Diane was able to observe and give feedback

directly to Paulette on her information interviewing skills. Homework for this week consisted of: (1) finding answers to some of her unanswered questions through further explorations in the career information library; (2) interviewing three individuals, one in each of the identified occupations; and (3) writing follow-up notes, thanking these contacts for their time and information.

Case analysis and conceptualization. Although Paulette had gained very useful information in the possible career fields, she needed to explore further. She needed to integrate this information about herself and about the world of work to see what kind of conflicts or consistencies she might expect. She also could benefit from more personal information. The national labor information in the OOH and DOT, as well as learning about the SOC and SIC classification systems, had given her useful information on which to formulate questions during her informational interviews.

Session 4: Career Counseling Phase—Middle

Goals. The goals are as follows:

- Review information gathered on informational interviews
- Begin looking at possible places of employment
- Begin preparation of a functional resume

Elements. The major elements are as follows: problem/goal clarification, specification, and beginning of resolution.

Counselor preparation. None is required.

Interview session. Paulette had conducted informational interviews with two of the three people. She interviewed a man who was in charge of training and development for a hospital complex and a woman who coordinated adult education courses at a community college. Both had provided her with information and valuable contacts for her to interview. Both positions seemed to be interesting and seemed to use the skills she was most interested in using. The adult education coordinator told her about a job she knew that consisted of training business people in the use of computer systems. Paulette was excited about this possible job lead. The lead also motivated her to put a resume together, which she had never done before. Diane discussed with Paulette the two major forms of resumes: functional and chronological.

The functional resume seemed to be the best way to emphasize Paulette's transferable skills from teaching to training adults in the use of computer equipment. Diane discussed with Paulette the need to personalize the resume as much as possible to this specific job. To do this, Paulette would again need to use some of the information resources in New Horizon's career library. Training and development and computer information in the *Dictionary of Occupational Titles* provided some information on what skills were needed in the job and thus were to be emphasized on Paulette's resume. Paulette also used the state career information delivery system to obtain more localized information.

Paulette's homework for this week was to draft a resume specifically for this job. She was also to do some research at the library that would help her become familiar with the company with which she would be interviewing. The next session was scheduled for that same week so that Diane could critique Paulette's resume and help her strengthen it. Diane also scheduled some time

in the next session to help Paulette with her interviewing skills. In preparation for the practice interview, Diane asked Paulette if there were any questions or areas of questioning that caused her anxiety. Paulette confided that questions related to salary made her very anxious. With further exploration, Diane helped Paulette see that most of her anxiety came from lack of information. That is, Paulette didn't know what was a realistic range for a given occupation. Diane showed Paulette another useful resource in the career library—the local *Wage Surveys*. By looking through these, Paulette got a much better idea of what was reasonable to ask for during salary negotiations.

Case analysis and conceptualization. Paulette was obviously highly motivated at this point. She lacked some information but was generally self-confident. The position for which she was applying certainly would utilize her strengths: strong communication and organizational skills. Diane viewed Paulette as having a variety of strengths that would be assets to her in this time of career transition. Her perception of the transition was a positive one. She viewed it as a gain rather than a loss. She had thought about the change for some time, so even though Michael's job loss precipitated some immediacy, it was not perceived as a great shock or crisis. Diane also viewed Paulette as being competent and resourceful, both of which were strengths in this time of transition.

Session 5: Career Counseling Phase—Ending

Goals. The goals are as follows:

- To review and strengthen Paulette's functional resume
- To give her practice with job interviewing
- To talk with her about her role in interviewing the company as well as them interviewing her

Elements. The major elements are as follows: problem/goal resolution and next steps.

Counselor preparation. None is required.

Interview session. Paulette brought her resume in. Diane reviewed it and helped her write a strong career objective. Diane also helped her make the skills section on the resume more specific and less abstract. In doing so, Diane was also giving Paulette some more impressive ways of talking about her skills in the job interview.

Diane also talked with Paulette about her role in the interview process. She would be interviewed. The company would be attempting to determine if she were the best person for the job. But Diane pointed out that it was important to remember that she needed to assess the merits of the company to her, as well. Diane reminded Paulette of her list of the parts of teaching she liked and disliked. Would she find more administrative support and reinforcement in this company than she did in the schools? They also talked about her skill and interest assessment. How might she assess whether this new setting would better fit her skills and interests? Diane helped Paulette develop a number of questions and ways of assessing this type of information during the interview. Paulette hoped she would make a better choice this time and would get into a career she would really enjoy. The rest of this session was spent in helping Paulette try out some questions and answers in a practice job interview.

Case analysis and conceptualization. Paulette was able, with Diane's help, to synthesize much of what she knew about herself with career information. Like many young adults at this developmental stage, there were many life questions—especially about past decisions. Even though Diane had talked with her about the normality of career change, and the probability that this would not be her last change, Paulette was still placing a lot of importance on making "the right choice."

Immediately after the interview, Diane called Paulette. She felt the interview had gone very smoothly. She had been able to gain a lot of information about the organization and thought it seemed like an excellent match for her skills and interests. Although not making her a firm offer, the interviewer had given her every indication that one would be forthcoming. Instead of waiting passively, Diane encouraged Paulette to send a thank-you note and express her continued interest in the position.

A week later Diane got another call. Paulette had been hired. She was now a trainer for Computer Systems, Inc. Although her salary was not starting out much higher than when she was in teaching, there was much more room for career advancement. The job looked like it would utilize Paulette's skills and interests.

Summary of Resources Used

- Self-Directed Search
- *Occupational Outlook Handbook*
- *Dictionary of Occupational Titles*
- *Standard Occupational Classification System*
- *Standard Industrial Classification*
- The state career information delivery system
- Local *wage surveys*

Case Study No. 4

Background

Lester felt as though his life had ended. He had worked for 23 years at a small plant that manufactured parts for automobiles. Ever since the slump in the car industry 6 years ago, there had been layoffs. But somehow he had felt that he would always have a job; after all, he had more seniority than 90% of the other workers. But then that Friday in December came when they told him the plant would close in 2 weeks.

Filled with shock and disbelief, Lester's first response was denial. "Maybe something will happen. Maybe this was just a bad mistake; surely the plant will reopen." As the week passed, it hit him. The plant would close, and it would not reopen. At 43, Lester was out of a job for the first time in 25 years. What would he do? How would he support his wife? Thank goodness, the kids were gone. Lester had run a metal press at the plant. No one would hire him to do that; it just wasn't in demand. Lester and his wife had lived in the city their whole lives. Other guys, younger guys, were talking about moving to Texas. They had heard there were jobs there. But Lester owned his house, and all his friends and family lived near him. He could not even think of leaving.

Lester had heard an ad on TV for a counseling agency called the Metropolitan Reemployment Project, which was founded to help laid-off workers find work. He thought it could not hurt to try, so he called and made an appointment. The project was housed at one of the local community colleges. His counselor's name was Keith.

Session 1: Career Counseling Phase—Beginning

Goals. The goals are as follows:

- To develop a relationship with Lester
- To conduct a work history to determine as much information as possible about Lester's background
- To clarify roles and expectations about what the Metropolitan Reemployment Project could provide
- To contract behaviorally for specific involvement on Lester's part

Elements. The major elements are as follows: relationship development and problem/goal identification.

Counselor preparation. None is required.

Interview session. Keith sat down and conducted a work history with Lester that consisted of many questions about his work, education, interests, and leisure activities. From this structured interview, Keith found out that Lester had a high school diploma, that he had gone to work for Specialized Motors, Inc. when he was 18, and that he had worked there ever since. His wife did not work in the paid labor force. When not at work, Lester's favorite hobbies were fishing and gardening—especially tending a beautiful rose garden. He was also a fair cook and prepared many fine German dishes. The couple was also very involved in church activities. Lester, in fact, served on the church's board of directors. His wife was president of the Ladies Aid Society. They had many long-time friends with whom they enjoyed playing cards and socializing on a weekly basis.

Keith talked with Lester about what Metropolitan Reemployment Agency could provide. Lester felt that the kinds of help (job club, resume writing, phone skills, interviewing skills, skills in researching a potential employer) would be useful to him. He said he felt like a kid—not knowing what to do to get a job. Lester had seen himself continuing at the plant until retirement. Now he felt thrown out in the cold—without an identity. Maybe if it had happened when he was younger it would not have been so hard. But at 43, with more years behind than ahead, the thought of changing was very frightening. Keith reassured him that he had many things in his favor—including a supporting spouse. Keith and he agreed to a contract that outlined the types of activities to which he would commit his involvement.

From the work history, it became quickly evident that one of Lester's main strengths was his vast social network. Lester had never thought of using these social contacts for job leads. Keith asked that Lester compile a list of everyone he knew who was now or had been employed in or near the city. This list would serve as the beginning phase of an active and nontraditional job search. Keith encouraged Lester to involve his wife in the brainstorming process. This inclusion served to provide more ideas for the list of contacts as well as allowing her to feel useful and resourceful.

Case analysis and conceptualization. Keith assessed Lester early on as needing support and encouragement. Lester had just suffered a pretty severe shock, so it was important that Keith build a relationship quickly and get Lester into some productive, directed action. Lester was experiencing a phenomenon common to many displaced workers—loss of identity. Lester was in a state of transition; he had lost a big piece of his old identity and had not yet found a new one. He was also experiencing the shift in time—seeing more years behind him than in front of him. He felt that he must act quickly. Keith realized these issues and responded quickly by building a relationship while conducting a work history.

Session 2: Career Counseling Phase—Middle

Goals. The goals are as follows:

- To help Lester assess his skills and interests
- To review the list of contacts Lester had been able to generate
- To teach Lester the skills of active job searching
- To orient Lester to using the career resource information library

Elements. The major elements are as follows: problem/goal clarification and specification.

Counselor preparation. None is required.

Interview session. Lester had generated a list of 69 possible contacts that he knew well enough to ask for information and assistance in his job search. Some were members of his church; some were neighbors or relatives; still others he had met through his co-workers. Keith encouraged Lester to talk a little about each contact; where they worked, what their particular jobs entailed, what were Lester's own perceptions of the job. Keith took notes while Lester was speaking. These contacts and impressions would be helpful in later sessions.

Although this list of occupations and contacts was long, there were many interest fields that were not represented. To broaden Lester's thinking, Keith administered an occupational card sort. By sorting cards into three piles (like, indifferent, dislike), Lester was able to identify several themes about jobs he was considering. Most of the jobs were "Realistic" in Holland's theme, but he also had "Social" and "Enterprising" interests. High-priority occupations for Lester included auto mechanic, TV repair, computer repair, groundskeeper, and landscape architect. Lester had friends who worked in all of these fields except computer repair. Keith felt, however, that he needed more information about these fields before talking with his contacts.

Keith introduced him to the career information library and specifically to the *Occupational Outlook Handbook* (OOH) and the *Dictionary of Occupational Titles* (DOT). By using these resources, Lester could get a much better idea of training, outlook, job duties, and general occupational characteristics. Keith also explained the career information delivery system used in their state, which would be helpful in localizing some of the information Lester obtained from other sources.

Keith asked that Lester spend time in the career library gathering information about each occupation he was considering. Keith gave Lester a form to fill out about each, including questions about job characteristics, training, occupational outlook (especially locally), and salary figures. He

also asked Lester to identify possible contact people within each area to use for purposes of informational interviewing. Keith also used the *Occupational Employment Statistics Data Reports* to identify any emerging occupations that might possibly be of interest.

Case analysis and conceptualization. Keith diagnosed Lester as lacking information about career options. As he had never had to think about career change before, Keith brought the focus to one of gathering information from both paper resources and personal contacts. Keith decided to use a card sort with Lester, as it was a tool that kept the two of them interacting while they were gleaning useful information about Lester's personality and interests. The information sources Keith and Lester used were particularly helpful, given Lester's desire to stay in the same city. Keith also assessed an unusual and incongruent interest pattern. Lester was a Realistic person in his work life. He enjoyed occupations that produced tangible products. He liked to work with tools, machines, and objects. He was, however, extremely social in his interactions. He enjoyed using his verbal skills, he loved activities that put him with others—whether that be through church, or fishing, or cooking for others. He had developed an extraordinary social network of people who knew him and would be willing to help him. Keith's first homework assignment served to capitalize on this strength. It also served to mobilize the resources of his wife and provide her with a way to help in the process.

Session 3: Career Counseling Phase—Middle

Goals. The goals are as follows:

- To review the information Lester gathered on occupations
- To look at local employment projections in order to assess job availability
- To determine which emerging fields might be possibilities for Lester
- To have Lester view a videotape on information interviewing and then structure interviews each day the following week

Elements. The major elements are as follows: problem/goal clarification and specification.

Counselor preparation. None is required.

Interview session. Lester had spent several hours in the career library reading about occupations of interest to him. He said he did not like to write, so had not filled out the forms very completely. But he had gleaned a lot of useful information about careers. He had found, for example, that landscape architects usually had a 4-year college degree. Television and automobile repair required vocational or technical training. He found by using the *Occupation Employment Statistics* that an expanding area was in robotics repair and in repair of telecommunications equipment. Although training was required, there were sites in the city, and the time frame was less than 1 year. The company had offered to pay for up to 9 months of training for workers after the closing. Lester felt that these emerging fields held promise. He did not want to get involved in another plant situation where he would be laid off or terminated in another couple of years. He wanted long-term employment.

Although these fields seemed interesting, he realized he knew little about them. Keith remembered an article in the *Occupational Outlook Quarterly* that he gave Lester to read. The career information delivery system also provided information on which vocational schools and

community colleges offered training in the areas of robotics and telecommunication repair. The current *U.S. Industrial Outlook* also provided useful forecast information on a national level regarding robotics.

By going back to his list of social contacts, Keith helped Lester identify which of these individuals might work for a firm that would employ people with skills in robotics or telecommunications repair. Lester could contact these people to conduct information interviews.

Keith described the concept of informational interviewing to Lester. Lester felt that he did not have any difficulty talking with people, so felt he could handle it easily. Keith explained that an informational interview is different than a social conversation. An informational interview requires preparation and structure. He explained that the purpose is to find out specific information about the occupation, and he encouraged Lester to develop lists of questions for each interview. To help emphasize his point, Keith did two things. First, he had Lester view a videotape on information interviewing, and second, he had Lester practice his skills by interviewing him. He gave Lester feedback on his skills and reinforced him for the quick rapport and amount of information he was able to attain.

Homework would focus on information interviews. Lester was instructed to schedule one for each day of the week. He was to make contact with the two individuals on his list who work for firms that might employ people in his two fields of interest. He would ask these people if they would recommend appropriate people within their companies to whom he could talk to gain information. He would also interview the placement director at the local vocational-technical school about job availability, costs and length of the training programs, and characteristics of successful workers in those fields.

Case analysis and conceptualization. Keith viewed Lester as being motivated, active, and well on his way. He diagnosed Lester's decisional style as one of examining information about occupations against certain priorities he had identified. Keith was making good use of Lester's verbal skills, while providing the structure Lester needed.

Session 4: Career Counseling Phase—Ending

Goals. The goals are as follows:

- Review with Lester what he had learned from his informational interviews
- Identify areas where Lester needed further information
- Determine whether Lester wanted to pursue these tentative options or generate others

Elements. The major elements are as follows: Problem resolution and next steps.

Counselor preparation. None is required.

Interview session. Lester was excited when he came for his fourth session. He had gotten the name of a man who worked for Business Telecommunication Systems. The man was a repair supervisor. Because the man knew Lester's contact person, he seemed to go out of his way to help Lester understand the intricacies of his job. And due to Lester's research in the career library and role-playing preparation with Keith, he presented himself as very interested and professional. Lester felt that he had gained a lot of encouragement and useful information. Lester observed

workers on the job. He talked with two informally about their jobs: what they liked and disliked, what a typical day was like for them, other places in the city that employed people with telecommunication repair-maintenance skills. He also talked with them about training. They said they had been working for the telephone company for years in maintenance and repair. Then when telecommunication systems started gaining popularity, they were sent to Houston for 6 weeks of specialized training. They did mention that Susan, a new repairperson in their division, had gone through a program for 6 months at the local vocational-technical school. Although she needed a lot of on-the-job training, they felt she had gotten a good general background at school.

Lester also contacted a manufacturing firm that had invested heavily in robotics. He spoke with a manager whose name he had obtained through a friend. The manager told him that, at this time, they used only one person in the area of repair and maintenance. Lester asked about other firms that were making extensive use of robots, but was told there was only one other plant in the city that did. Although Lester thought robotics repair would be interesting, the market seemed quite limited. Keith said they could look for more specific information on numbers of people employed in robotic repair by using the *State Vital Information for Education and Work* system. By doing this, they found that although the projections looked somewhat favorable, the next few years might have limited employment in the city. Telecommunications repair seemed more immediately promising.

Although Lester seemed decided on his course of action, Keith helped him examine both the advantages and disadvantages of his choice. All in all, it seemed that it met many of Lester's criteria: early entry, potential for employment within the city, a fair amount of job security, ability to use his hands and work on very tangible products, and a good deal of people contact.

Summary of Resources Used

- Occupational card sort
- *Occupational Outlook Handbook*
- *Dictionary of Occupational Titles*
- *Occupational Employment Statistics*
- *Occupational Outlook Quarterly*
- *U.S. Industrial Outlook*
- The state career information delivery system
- Videotape on informational interviewing
- *State Vital Information for Education and Work* (VIEW) system

Case Study No. 5

Background

Dwayne is a 32-year-old divorced male from a city with a population of 60,000. He has a bachelor's degree in education with a teacher's certificate (major in speech and drama and a minor in history) and a master of divinity with an emphasis in pastoral counseling. He has been drawing Social Security Disability Income (SSDI) benefits since September 1981. He has a severe seizure disorder and was recently told that his SSDI would be terminated.

He came to the rehabilitation office to receive help in deciding upon a career and obtaining employment.

Session 1: Career Counseling Phase—Beginning

Goals. The goals are as follows:

- To establish rapport
- To gather background and related information (emphasis on work and medical background)
- To identify decisions to be made
- To explain the rehabilitation process, outlining client and counselor responsibilities

Elements. The major elements are as follows: relationship development and problem/goal identification.

Counselor preparation. None is required.

Interview session. Dwayne came to the interview on time and appeared very open and willing to discuss his situation. He explained that he had had a seizure disorder since adolescence and that it became worse in 1980, when he was placed on SSDI. He was experiencing an average of five seizures per week. His doctor felt that these could be dramatically reduced once his medication was adjusted. Dwayne stated that he had been notified that his SSDI benefits had been terminated. Dwayne wanted help in making a career choice and assistance in obtaining employment.

He stated that he had worked as a shoe salesperson all through college and seminary. After graduating from the seminary, he decided he did not know what he wanted to do but did not want to work in the religion field. With assistance from his wife, he went to work as an employment counselor. After working 14 months, he left to take a position as administrative assistant with the Action League for Physically Handicapped, where he would make more money. After working there for 25 months, he was told to resign or be fired. According to Dwaye, his problems were with his boss and not with the people with whom he worked. He applied for and was awarded SSDI benefits upon leaving this position. Dwayne stated that following this, he made several "half-hearted" attempts at obtaining employment over the next 12 months. Finally, with the help of a friend, he went to work at Barter Enterprises selling memberships to businesses in a barter program. This lasted 2½ months, when he was fired. Dwayne stated that he was having problems with performance because he could not drive and the position required him to call on all potential

customers. He also stated that he did not relate well to his supervisor. Six months later, he went to work selling light bulbs over the telephone. This lasted 1 month, when he quit due to low salary.

Dwayne divorced his wife after 13 years of marriage. He stated that they were no longer compatible. He was now living without any income with his parents. He was dependent upon them for food, shelter, and transportation.

Dwayne's seizure disorder had been present since adolescence. The seizures had been occurring frequently and had always interfered with his work. He stated that, in the past, employers had had to give him special consideration. The disorder was not well controlled but, he felt, would be better controlled in the next 12 months, the time the doctor felt it would take to obtain a satisfactory medication level.

Assuming that the seizure disorder would be better controlled, Dwayne wanted to discuss possible careers. He felt that his main problem was the uncertainty he felt about a career. It seemed that his uncertainty was from both a lack of information and confusion over his own values and goals. He was also having trouble seeing himself in a work setting due to the seizure disorder. Due to the loss of SSDI, he had to seek employment and at the same time was not sure what type of work he could do. The counselor began to help clarify Dwayne's skills to show him that he had demonstrated certain abilities in his past work. The counselor summarized Dwayne's past work as people-oriented, dealing with changing situations, and dealing with influencing others.

To take this further, the counselor asked Dwayne to list all of the things he liked and disliked about his past work and educational training. They also discussed what it meant to be "undecided" about a career. Because he had had substantial training for people-oriented occupations, they discussed whether his interest remained in the area of dealing with people. The list they developed was very heavy in that direction. They then discussed the problems he had had in the past with employers. Dwayne also discussed his perceptions of his seizure disorder, his view of his relationship to superiors and subordinates, and his goals.

Near the end of the first meeting, a plan of action was outlined. Dwayne would contact the counseling center and use their computer-based career information system and bring the results to the next session. The counselor would review Dwayne's past work history and educational training and develop a vocational profile that would reflect his strengths. Dwayne would also complete a value exercise to identify values he felt were most important. It was agreed that he would discuss with his pastor possible employment opportunities for a divorced person with a seminary degree. The counselor gave Dwayne a map of the *Metropolitan Statistical Area* (MSA), to give him an idea of the boundaries of the local labor market for which employment data were available. Dwayne was given a copy of *State Occupational Staffing Patterns*. He was shown how, by using state staffing patterns with the *Occupational Employment Statistics* for his area, he could identify occupations with significant employment in his area and the industries in the area that employ those occupations.

Case analysis and conceptualization. The counselor began to analyze and synthesize the information obtained in the interview. Dwayne had a serious problem with his seizure disorder. There was little that could be done in terms of long-range planning until more information could be obtained to determine the prognosis. In the interim, career counseling—to help Dwayne determine the direction he would consider once the seizures were reduced—would be the course of action. Dwayne was very confused about losing his SSDI and at the same time stated that he felt he could work in some areas. He was also undecided about pursuing work in religious areas, even though he had training. In the past, his job seeking had been totally dependent upon other people

telling him about work. His attempts at finding work on his own had been very weak. He had a problem with transportation, which would have to be considered when a career choice was decided upon. Dwayne had a general lack of information about his interests, skills, and general abilities.

Session 2: Career Counseling Phase—Middle

Goals. The goals are as follows:

- To review the information system data
- To clarify values, goals, interests
- To clarify past problems with superiors
- To review skills list completed by counselor
- To introduce the *Guide for Occupational Exploration, Handbook for Analyzing Jobs, Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles*

Elements. The major elements are as follows: problem/goal clarification and specification.

Counselor preparation. None is required.

Interview session. In preparation for this session, the counselor profiled all past work and developed a list of skills and interests that Dwayne had demonstrated. In addition, the counselor reviewed the *Guide for Occupational Exploration, Handbook for Analyzing Jobs*, and *Selected Characteristics* to prepare a homework assignment. Finally, the counselor reviewed past issues of the *Occupational Outlook Quarterly* for articles related to Dwayne's past training.

As the session got underway, Dwayne presented the results of his computerized information search and the values exercise. This information indicated that he was very interested in people, rated helping others and leadership as very high, and wanted an occupation that would allow him to enter with little, if any, additional training.

He stated that after reviewing the list of occupations, he was interested in possibly teaching. The other occupations looked at based upon his past work were clergy and counseling. Dwayne was introduced to the *Guide for Occupational Exploration, Handbook for Analyzing Jobs*, and *Selected Characteristics*. The counselor and Dwayne took one occupation in each of the three areas and developed a profile for each one. This gave him practice so he could do the others at home. In looking at these three, he began compiling a list of occupational titles that he might want to investigate.

The session then shifted to focus on Dwayne's relationships with supervisors and where the problems occurred. He felt his problem was that he was impulsive and did not always measure his responses. With this in mind, Dwayne agreed to keep a journal of situations where he was confronting or being confronted by someone. At the end of each day or as soon as possible after the situation, he would review his response and practice a more appropriate response to handle the situation. Dwayne had suggested that this type of approach had worked for him in the past. Through this process, Dwayne hoped to be able to respond more appropriately and thus relate better to supervisors. Since his main interest was in people-oriented occupations, he needed to gain control of his impulsive behavior.

The session ended by outlining homework to be completed and action to be taken before the next session. Dwayne would spend more time with the information system, because he felt that it was very helpful. He would determine a hierarchy for the three general areas (clergy, counseling, teaching). There would be a second hierarchy of the occupations listed under each of the three major headings. He would review the *Guide for Occupational Exploration* and *Selected Characteristics* to identify which occupations matched his skills and interests. Having failed to meet with his pastor prior to this session, he would contact him for a meeting before the next counseling session. The goal of this meeting would be to obtain information about occupations that might be appropriate for a divorced person with a master of divinity degree. Dwayne would review the *Occupational Employment Statistics* and would identify the number of positions that existed in the state and also for the MSA closest to his residence. He would also contact the Employment Security office to determine the number of requests they had reviewed for each occupation.

The counselor gave Dwayne copies of the *Occupational Outlook Quarterly*, which had articles on occupations related to his interests.

Case analysis and conceptualization. Dwayne was very upbeat and excited that he had a list of occupations to consider. The counselor felt good about the exploration process and how much the client was able to accomplish with only facilitation by the counselor. The client's homework should allow him to obtain more information about each occupation and make a more informed decision. Work would need to continue with Dwayne to help him learn better ways of dealing with superiors. A less-motivated person would not have been as involved and completed the homework. Dwayne was at the point of wanting help and was willing to help himself.

Session 3: Career Counseling Phase—Ending

Goals. The goals are as follows:

- To review list of occupations developed by Dwayne
- To compare the list of his skills to skills required by the occupations he selected
- To discuss new information obtained from a second visit to the computerized information system
- To clarify interests and abilities

Elements. The major elements are as follows: problem/goal resolution and next steps.

Counselor preparation. The counselor reviewed OES projections, the *Labor Market Newsletter*, and the *Occupational Outlook Handbook*.

Interview session. In the session, Dwayne reviewed his journal and said he felt that he was relating much better to people. He had not been as impulsive and had not had any confrontations since the last session.

After talking with his pastor, he identified the position of a church student center assistant director as one position he would like to pursue. He also mentioned admissions counselor, residence hall counselor, juvenile counselor, and secondary education teacher. The client and counselor reviewed the OOH and OES data to identify the numbers and locations of these positions. The counselor and client agreed that it would be good if the client could investigate other occupations

that would have less stressful involvement with people. Also, it was agreed that the client would attempt to volunteer at a nursing home or a library, where he would be supervised and have some dealing with people but limited stress. This would both assess his people skills and provide him with information about other occupations. He was also going to contact at least one company employing the occupations he had selected to discuss the requirements of the positions and what training they required.

Case analysis and conceptualization. Dwayne was now using a systematic approach to assess his skills and interests and compare those to possible occupations. He was more aware of how to identify his interests and values and compare those to occupations. He was showing more self-confidence and felt he could present himself much better. Both Dwayne and the counselor felt he needed to work on discussing seizure disorders with potential employers and both agreed that a job search should not be started until he had had an opportunity to volunteer at a few locations and determine how well he liked that type of work and how well he related to supervisors.

Summary of Resources Used

- Computer-based career information delivery system
- *Guide for Occupational Exploration*
- *Metropolitan Statistical Area*
- *Occupational Outlook Quarterly*
- *State Occupational Staffing Patterns*
- *Occupational Employment Statistics*

Suggested Activities

The following situation is a real case. The description appeared in the *Roanoke Times & World-News* in the summer of 1983. It could be repeated hundreds of times in cities all over the country, as a growing number of young college graduates face increasing difficulty in finding jobs that they feel are in keeping with their educational attainments. Read the situation carefully and answer the questions at the end of the write-up.

Well educated — and jobless:

You can't say Stephanie Simmons hasn't tried

JOBS

By Brian O'Neill

It wasn't supposed to be this way, Mary Simmons said. She had always told her daughter, Stephanie, to work hard in school and she would be rewarded with a good job after graduation day.

At Patrick Henry High School, Miss Simmons was a top student. She graduated in 1976 with a 3.8 average. She was in the National Honor Society, Who's Who Among American High School students, and received five college scholarships.

She graduated in 1981 from Virginia Commonwealth University with a bachelor's degree in biology with related courses in chemistry. Her grade point average there was 2.5. Her goal was to get a job in the medical field, using her expertise in the areas of bacteriology, hematology and chemical analysis.

It seemed a reasonable goal. All she has so far, at age 25, however, are two manila envelopes full of rejection letters from dozens of companies across the nation. The combination of a tight market and her being either underqualified or overqualified for jobs has left her without work.

"I've never known the time when a person couldn't get some type of job," Mrs. Simmons said. "After you have struggled, when you come out (of college) you expect something . . . What's the use of going?"

"I feel like something should have come up by now," Miss Simmons said. "And the chances that I did have, why did they blow up in my face?"

She was referring to the two jobs she has had since graduation. Her employment was terminated quickly at both. It has left her disillusioned and distrustful.

The first job was as a physical science technician at the Norfolk Naval Shipyard in Portsmouth. She got the job in September 1981 and lost it three days before Christmas that year. The Dec. 18 memorandum notifying her of her impending discharge said she was unable "to perform the full duties required by your position as a result of your fear of heights.

"Your condition was not made known to this organization prior to your employment and we regret having to take this action."

Miss Simmons said she had no idea until her training period was over that the job required her working in high places. She also thinks there was more to her firing than her fear of heights. In May of this year she submitted a notarized affidavit to the Equal Employment Opportunity Commission complaining of harassment and claiming she was discriminated against because of her mental handicap (fear of heights), her sex and her race.

Miss Simmons is seeking an equivalent position somewhere in commuting distance to Roanoke and full back pay and benefits. The case is under investigation by the Southeast Region Naval Civilian Personnel Command.

Her other job was at Catawba Hospital in late June of this year. It lasted four days. She got the job partly because of her experience as a summer intern in 1978 at the Veterans Administration Medical Center and Community Hospital. Part of her duties included taking blood.

She had difficulty taking blood at Catawba, she said, because she was dealing with older patients and mentally handicapped people who sometimes were physically unable to cooperate. Their arms would go limp, Miss Simmons said, or she would have difficulty finding the vein.

Leonard Herr, employee relations director at the hospital, agreed in a telephone interview that Miss Simmons' inability to perform this task, basic to the temporary lab technician position, was the reason for her termination. The hospital didn't have time to train her. Herr emphasized, however, that he did not think the hospital staff or Miss Simmons misrepresented themselves when she was hired.

A hospital personnel official even wrote a brief "to whom it may concern" letter saying Miss Simmons had done a satisfactory job.

"Our signals got crossed," Herr said. "She was really doing what she could do. She was a super gal, a good person . . ."

Unfortunately, those attributes haven't allowed her to get a job. She said she cried for two days after losing the Catawba job. The job interview had been her first since losing the

job in Portsmouth. She usually doesn't get past the rejection letter.

Most of those letters are similar. They start out with "Thank you for your recent inquiry" and soon say "there are no positions available" for her.

"This is the story I've been getting since I graduated," she said.

She has been frustrated with the Virginia Employment Commission, which she realizes has more people than her to worry about. But when a laboratory technician job came open—where it was the VEC could not say—the employer would not talk directly with Miss Simmons. Through a VEC mediator, the employer said she would be bored and underpaid because she was overqualified for the job.

Miss Simmons knew she could be no more bored or underpaid than she is now.

"If I have to agree to stay on the job for two years without leaving I would."

It would help if she could get certified as a medical technician through one of Roanoke's hospitals' programs. Because of her previous degree, it probably would take only 10 or 12 months, she said.

But because she is out of work, she is hundreds of dollars past due on her college loans. Until she comes up to date, VCU won't release her transcripts. That keeps her from any further education.

The dilemma is even more frustrating than the old refrain she has been introduced to recently: "you need experience to get a job but you can't get experience without a job."

So she continues looking for jobs—by herself. She said she can't afford the fees at employment agencies.

She has applied for jobs outside her field, but has found her lack of typing skill to be an insurmountable obstacle.

She shows her resume and her rejection letters. "I did what they told you do do in school." It hasn't been enough.

She knows she is not the only one out of work. But every time she hears of somebody being hired, especially when it is with a company where she has an application, she wonders why it isn't her.

(Reprinted with the permission of the *Roanoke Times & World-News*.)

Stephanie Simmons has now come to see you. Her questions are as follows:

1. What resources do you suggest I use to help me get a job?
2. What agencies or contacts do you suggest? Explain.
3. Can you work with me over the next 2 to 4 weeks to locate suitable employment?

Write up a case analysis and conceptualization with one to four career counseling phases and note appropriate labor market information and other resources you would use.

Note. Appendix F, "Networking: Resources for Establishing Lines of Communication," provides specific reference materials to individuals, agencies, or organizations that provide key information resources referenced in this chapter.

CHAPTER VI

DEVELOPING A PROFESSIONAL PLAN OF ACTION

CHAPTER GOALS

1. Introduce the concept of a professional plan of action.
2. Illustrate some opportunities for counselor professional development.
3. Illustrate some opportunities for counselor information development.
4. Illustrate some opportunities for counselor community development.

HIGHLIGHTS

- Professional Development—networking, mentoring, career resource centers
- Information Development—local employer contacts, apprenticeship surveys, small business surveys
- Community Development—contacts, conferences, committees

Introduction

Probably the most important thing a counselor in a new assignment can do is develop a professional plan of action. The preservice aspects of counselor education usually involve a busy, demanding, and rapid period of learning. For most people it is a period of high excitement because it means finding out so many ways to be an effective counselor. The challenge of the future is to maintain that same excitement and learning on the job. One way to do that is to leave nothing to chance, to go to a new assignment with your own ideas about what you feel you need to do to keep *yourself* up to date. Do not expect supervisors and co-workers to assume responsibility for your growth and development; in the final analysis, *you* are the only one responsible for your professional progress.

Any plan of action must have (1) a strong organization of ideas, (2) a set of goals and objectives, (3) a set of priorities for the goals and objectives, and (4) a set of time lines with periodic reevaluation built in. This chapter offers some guidelines to assist you in establishing your own professional plan of action. Your personal education and work experience may suggest some modifications, so use these guidelines as a point of departure. A workable plan should be built around three main areas:

- Professional development
- Information development
- Community development

In practice, all three of these areas tend to blend together at times. For example, working with a group of civic club members may initially lead to community development, but may ultimately lead to information development and, in some fortunate cases, to establishing a strong relationship with a businessperson who may serve as a mentor for your own professional development. The separation into categories is made more for clarity of ideas than to suggest they will be this distinct in day-to-day activities. But there should be action on all three fronts, and these actions need to be based on a plan that has established priorities, time lines, and periodic evaluation.

Professional Development

The objective of professional development is to establish and maintain a high degree of professional involvement and responsibility. Though most professional organizations make it easy to join, it is better not to wait for an invitation but rather to show your initiative by joining without being asked. If you have been a student member of national/state/local organizations, it should be relatively easy to shift your membership over to regular status as a full-time counselor. If you have not joined such an organization, start by writing to the American Association for Counseling and Development (AACD) (5999 Stevenson Ave., Alexandria, VA 22304) and/or the American Vocational Association (AVA) (2020 14th Street, Arlington, VA 22201). Ask for full details on membership and the name and address of the state branch of AACD or AVA in your area.

It is important to select the divisions of AACD and AVA that best meet your interest and job setting. The divisions are as follows:

- American College Personnel Association
- Association for Counselor Education and Supervision

- National Career Development Association (formerly the National Vocational Guidance Association)
- Association for Humanistic Education and Development
- American School Counselor Association
- American Rehabilitation Counseling Association
- Association for Measurement and Evaluation in Counseling and Development
- National Employment Counselors Association
- Association for Multi-Cultural Counseling and Development (formerly the Association for Non-White Concerns in Personnel and Guidance)
- Association for Religious and Value Issues in Counseling
- Association for Specialists in Group Work
- Public Offender Counselors Association
- American Mental Health Counselors Association
- Military Educators and Counselors Association

For the American Vocational Association, the appropriate membership is the Guidance Division. The same divisions should be available in most states. Local chapters normally combine all interest areas, except in large metropolitan centers, where separate local divisions may exist.

Appendix C, "Vocational/Career Counseling Competencies," will help to identify the most critical competencies needed by professional counselors as suggested by the former National Vocational Guidance Association.

Task 1

Join and become active in the American Association for Counseling and Development (AACD) or the American Vocational Association (AVA) and appropriate divisions.

Join and become active in the state branch of AACD, AVA, and appropriate divisions.

Join and become active in your nearest local chapter of AACD or AVA state branch.

From these actions you should receive a steady supply of timely ideas in journals and newsletters. In addition, local, state, and national professional associations all hold regular meetings you should attend. If you want additional labor market information, you may want to subscribe to the *Occupational Outlook Quarterly* and/or the *Monthly Labor Review* from the U.S. Government Printing Office, Washington, DC 20402.

Task 2

Get on mailing lists—free and subscription. The pace of change is moving so fast that you must keep up or you will find that you are dropping behind. One way to keep up is to sign up for relevant newsletters and news releases published by local, state, and national associations and organizations, such as the National Alliance of Business and the U.S. Department of Labor, or subscribe to newsletters such as those published by Chronicle Guidance Publications (Moravia, NY) or Garrett Park Press (Garrett Park, MD).

Task 3

Establish a network of trusted professional colleagues. One of the advantages of joining professional organizations is meeting professional co-workers. Find out which ones have similar interests and work settings to yours. Set up a regular time for discussions and maybe a meal together before or after meetings. You should also collect directories of professional associates so you can reach them as needed. Most professionals work most effectively through consultation and communication. Get your network started early.

Task 4

Establish a mentoring relationship with one or more respected people in your area. This is a more selective form of networking. It means building an ongoing relationship with a professional person(s) who can help you grow. This ought to be someone you respect and wish to emulate. It should be someone you feel you can contact if a situation comes up in which you need assistance. Otherwise, you may want to keep up with a mentor on a regular basis through professional or personal meetings, correspondence, and phone calls. A mentor may be a former professor, a supervisor, or a veteran counselor from whom you can learn and grow. It should be a person willing to share his or her time and talent with you.

Task 5

Establish or rejuvenate a career resource center (CRC). There are plenty of useful suggestions around on how CRCs ought to be operated. Three key suggestions are as follows:

- Give the CRC a multimedia approach—use films, filmstrips, records, tapes, pictures, videotapes, microcomputers, microfiche, and so forth.
- Make it bright and lively—keep the tone attractive and inviting, use colorful bulletin boards, charts, posters, and the like.
- Make it timely and up to date—be sure old material (over 3 years old) is discarded and current content is plain to see.

To help you get started, here are some ideas on what kind of print material to consider in getting your CRC started or rejuvenated. This list, originally compiled in 1983, will need to be updated annually and fresh resources brought in.

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Other Useful Sources

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Useful Lists

These lists contain useful charts, addresses, and phone numbers for your career resource center.

- Adult education service directors in your state
- Area vocational-technical centers in your state
- Association of private career schools in your state
- Department of rehabilitative services in your state
- Directory of Federal Personnel Offices, Office of Personnel Management, Washington, DC 20415
- Federal Work-Study Loans and Grants, 800-638-6700 toll-free number
- Information and referral centers in your state
- Directory of financial aid opportunities in your state
- Military service toll-free recruitment numbers:
  —Navy 800-638-5980
  —Army 800-872-2769
  —Marines 800-552-9548
  —Air Force 800-531-5826
  —Coast Guard 800-424-8883
- Directory of Accredited Home Study Schools, National Home Study Council, 1601 18th St., NW, Washington, DC 20009

- Training Opportunities in Job Corps, U.S. Department of Labor, Employment and Training Administration, Washington, DC 20213
- Employment commission offices in your state
- General education development testing program in your state

Information Development

The idea is to develop good information mainly for the people whom you serve—students, clients, and others. A secondary benefit may be to aid yourself by gaining more understanding about career information in the process. The goal is not for you to try to become a labor market information (LMI) expert but to learn about the local community from an LMI perspective. Remember, you *cannot* do all of these things at the same time. Find out what type of information your clients need the most. Decide which tasks are most important, and add some ideas of your own—but *get started* by setting some priorities for years one, two, and three.

Task 1

Contact local employers. This is an excellent way to get an overview of the local employment situation. Once you have done this, you should have an idea of area job opportunities. Then, once you draw in the involvement of as many other counselors as possible, you can contact more employers. Another possible source of assistance may be a university business-industry practicum that might permit you and your fellow counselors to earn graduate credit under appropriate supervision. If the contacts are comprehensive enough, the results may be worth putting together as a local guide to employers. Funding may be available through a local service or civic club. Be sure to ask them for some community support. Keep in mind this series of contacts is only a supplement to existing local labor market information. Build on that base in an effort to personalize your contacts with local employers. This is an informal contact so do not try to make it a scientific survey. Build some goodwill and gather information through area employer contacts. The dividends will pay off handsomely.

You should make a balanced study of the *major types* of employers in your employment region. In most cases, this would involve the following job settings:

- A major health care facility
- A major retail distribution facility
- A major food and lodging facility
- A major manufacturing facility
- A major banking facility
- A local and/or state government facility

Local conditions may suggest other major employers in your areas, such as an insurance company. If time and personnel are available, cover the second or third major employers in each group. A comprehensive study should have 30 to 50 places of employment to provide a proper overview. The study should be updated every 2 to 3 years to ensure current information. Be sure to look for some local illustrations of the concepts brought out in chapter 2, such as internal/external labor markets, supply/demand of workers, and so forth.

There are numerous ways to organize your employer contacts study. Try to collect the data in such a standardized way that they can be easily put in a compilation, such as a "Local Job Guide." A suggested format for collecting information on each employer is given in Figure 6-1.

Task 2

Identify local leisure activities (Little Leagues, Little Theater, etc.). Many people will explore work possibilities through leisure. As an effective counselor, you need to know what local leisure opportunities are available so that your clients can explore both work and leisure options in their career development. Often a skill developed in a leisure activity can lead to full-time employment. Consider the case of the factory worker who learned upholstery in his/her leisure time from the local recreation department and opened up a shop in his/her basement when his/her employer shut down the factory. Or a high school student who learns bicycle repair in a local adult education night class and opens up a small repair business following graduation. People need to know more about the work/leisure connection. You can help by creating a "local leisure file" that is timely and comprehensive. Many localities have conducted leisure fairs, where they bring in area craftspeople and others to model the ways people are putting their leisure to work.

Task 3

Develop charts of local occupations (pictures, stories). An outgrowth of the local job survey may be to develop one or more charts featuring local employers or local occupations. This also can be done with pictures and brief job descriptions to be posted in prominent public locations, such as at shopping centers. You may want to feature young workers in entry positions and call the series "Waco at Work" or "Wilmington at Work" or the like. This provides a good visual means of highlighting local jobs and employers.

Task 4

Gather local wage and salary information. Many young people simply do not know what workers make on the job. Help them by collecting *and* disseminating information you have on wages and salaries. You should try to get this from state or local sources. If not, you may have to draw it from your local job survey. Another approach may be to turn to a business class to collect the data as a project. A local civic or service club may also be willing to help.

Task 5

Establish profiles of recent graduates or vocational biographies. This is an excellent way to bring out the "psychosocial" aspects of work. Make LMI come alive through people activities. What is it like to be a secretary? What about a data entry operator? What about a truck driver? Tell the story to your clients through words, pictures, or audiotapes of what occupations are like and what people do on the job. Put the information out where it is readily available in the CRC.

Local Employer Contact Form

Name of Facility and Address: _____

_____

Name of Contact Person: _____

Position and Title: _____

Total Number of Employees: _____

General Types of Employees: _____

_____

_____

Entry Jobs for High School Graduates and Numbers: _____

_____

_____

Entry Jobs for Community College Graduates and Numbers: _____

_____

_____

Entry Jobs for Four-year College Graduates and Numbers: _____

_____

_____

Employment Needs over Next 12 Months: _____

_____

_____

Employment Needs over Next 5 to 10 Years: _____

_____

_____

Figure 6-1. Suggested form for local employer contacts.

Jobs for Handicapped Workers: _____

_____

_____

General Working Conditions: _____

_____

_____

_____

Inservice Training Programs: _____

_____

_____

_____

Opportunities for Advancement: _____

_____

_____

_____

Salary Ranges for Entry Workers: _____

_____

Fringe Benefits: _____

_____

_____

_____

Additional Comments: _____

_____

_____

_____

Figure 6-1. Suggested form for local employer contacts (continued).

Task 6

Publish a newsletter of new or expanded jobs in your area. Some type of regular communication with colleagues and constituents can help them to know what you are doing and how they can use the information. You can use your local job survey to furnish copy for several newsletters. Other parts of your plan of action, such as reading outside newsletters or drawing upon job opening surveys, can contribute to your newsletter. Be sure to keep the content light, breezy, and attractive to readers and suitable for photocopying to put on bulletin boards.

Task 7

Conduct an apprenticeship survey. This also may spin off from your local job survey and lead to a more in-depth look at area apprenticeship opportunities. If you have a local apprenticeship information center or council, it may already have the information or may have people who can assist you in gathering the data. You should survey to locate major apprenticeships available by using a modification of the local job contact format (Figure 6-1). If apprenticeships are not available in your area, then survey local on-the-job-training opportunities. Charts and pictures are an attractive way to communicate your findings.

Task 8

Conduct a survey of part-time and moonlighting jobs in your area. For a variety of reasons, some people prefer to work part-time. Sometimes they want to work full-time but cannot locate such employment. Others have full-time jobs but want additional income or experience. In short, there are many people looking for part-time jobs. Good local surveys of this type are hard to find. This would be an excellent project for a retired citizens group to take on as a community contribution. It would put you, the counselor, in a strong position of directing a worthwhile data-gathering activity.

Task 9

Develop charts on jobs in your area for the year 2000. This could be an objective outcome of a local conference on "Work in the Year 2000," which is also suggested under the community development section of this chapter. This focus would give some concreteness to the conference. It would provide a way of visually forecasting how the job outlook in your area might be the same or different than it is now. Be sure to use some graphs and pictures to get your points across. Consider whether most new job openings will come about through replacements or creation of new jobs.

Task 10

Contact small businesses in the area—those with less than 25 to 50 employees. Here is a task that should be very interesting. Most job surveys are of major or larger employers—those with 50 to 100 employees or larger. In today's economy, many small businesses are growing faster than large ones. Find out what is happening in your area with jobs in small business. Start out with a group of small businesses, such as automobile dealers, drug stores, plumbing shops, electrical repairers, and so forth. Use your local job contact forms with any needed modification to get started.

Community Development

In this effort, it is vital to get out of your office and get to know people and organizations in your community. This may be done through a variety of contacts. You may have some ideas of your own, but here are some possible tasks to consider and prioritize over a 3-year plan.

Task 1

Build a file of contacts in local civic and service groups, such as Women's Network, Lions, Kiwanis, Civitan, Optimist, Rotary, Jaycees, and so forth. There may be a host of other organizations in your locality that quickly come to mind, but those just mentioned will get you started on building this file. An organization such as the Rotary International has well over 1 million members and has vocational service as one of its main objectives. In addition to helping furnish contact people for arranging business-industry tours, Rotary members often volunteer to speak to those interested in their occupations. They may be willing to assist in setting up a speaker's bureau for your use.

Task 2

Establish plans for various periods of career emphasis throughout the year. It is imperative to keep the public informed about your work. It is also important to let your clients know what you are doing and that you feel your planning is relevant to them. One way to do this is through various periods of career emphasis. Two examples of times to do this are (1) National Career Guidance Week, usually in early November, sponsored by the National Career Development Association (a division of AACD); and (2) National Vocational Education Week, usually in February, sponsored by the American Vocational Association.

Task 3

Organize a local conference on "Work (Jobs) in the Year 2000." Many people are concerned about all aspects of the future. In many ways we live in a future-oriented society. One way to capture much of that interest is to organize a local conference on "Work in the Year 2000." You may want to join the World Future Society or one of its many local chapters to get some background material and provide some assistance with conference details. Get some of the local civic, service, and government groups involved, too. If the conference goes well, give some thought to publishing the proceedings, or at least a summary. Invite the local press and media to attend.

Task 4

Make contact with your state occupational information coordinating committee, state employment security agencies, and state rehabilitative services agency. Make sure you get in touch with at least these three state agencies. They probably publish (free) newsletters and send out news releases that will be invaluable to you and your clients. Further, the various groups may have state or local conferences and meetings that would be informative for you to attend. All three of these groups generate numerous kinds of LMI that you will want to have readily available. These contacts should extend to a variety of special needs groups with whom you work.

Task 5

Establish an advisory committee for your work setting. One of the most effective ways of building local support for your program is to invite community people to serve on an advisory committee with you. You can work with local groups, such as the Jaycees, Chamber of Commerce, and business-industry councils to determine some potentially good candidates. The advisory group should be selected from a broad range of citizens who have an interest in what you are doing and who will strive to see that you receive as much support as possible to improve your services. Regular meetings should be planned (e.g., quarterly, bimonthly, or monthly). Have some responsible tasks lined up for your council. They will know very quickly if they are not being taken seriously.

Getting Started

The suggestions in this chapter should provide you with some ideas on what to put into your action plan. Consider each one carefully once you establish yourself on the job as a career counselor. There is still as much or more to be learned than what you have learned so far. Putting your professional plan of action into operation will go a long way toward the goal of continuing your education as a skilled career counselor. Figures 6-2, 6-3, and 6-4 are sample forms for the next 3 years' action plans.

Get started! Choose some goals. Devise a time line for completing the goals. Evaluate the outcomes fairly and move on to the next year with revisions based on the past year's experience. Maybe you will want to keep a 3-year plan of action at all times.

Suggested Activities

1. Arrange a discussion group on the pros and cons of mentoring and networking.
2. What is an "old boys network" and how does it operate? Should women develop the same thing? Why or why not?
3. Inquire of at least five local organizations or agencies about local job studies.
4. Visit a career resource center. Evaluate the local nature of the resources. How much of a multimedia approach is being used?
5. Develop an inventory of local and state subregional or state groups that may fit into your professional plan of action.
6. Develop an individual action plan for the next 12 months as well as projected plans for the second and third years. Use the forms on the following three pages.

FIRST YEAR PLAN OF ACTION FOR _____

Professional Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi

Information Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi
Task 4		1 Lo	2	3	4	5 Hi
Task 5		1 Lo	2	3	4	5 Hi

Community Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi

Overall Evaluation of First Year Professional Plan of Action _____

Figure 6-2. First year professional action plan form.

SECOND YEAR PLAN OF ACTION FOR _____

Professional Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi

Information Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi
Task 4		1 Lo	2	3	4	5 Hi
Task 5		1 Lo	2	3	4	5 Hi

Community Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi

Overall Evaluation of Second Year Professional Plan of Action _____

Figure 6-3. Second year professional action plan form.

THIRD YEAR PLAN OF ACTION FOR _____

Professional Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi

Information Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi
Task 4		1 Lo	2	3	4	5 Hi
Task 5		1 Lo	2	3	4	5 Hi

Community Development

	Time Lines	Evaluation Degree of Accomplishment				
Task 1		1 Lo	2	3	4	5 Hi
Task 2		1 Lo	2	3	4	5 Hi
Task 3		1 Lo	2	3	4	5 Hi

Overall Evaluation of Third Year Professional Plan of Action _____

Figure 6-4. Third year professional action plan form.

APPENDIXES

EXPLORING RELATED INFORMATION

APPENDIX A

ADDITIONAL LABOR MARKET INFORMATION RESOURCES

Additional Labor Market Information Resources

The resources included in the main body of this text represent a relatively small part of the labor market information (LMI) that is available to counselors. The additional items below also should be reviewed by counselors who are seeking career and occupational information for their clients.

U.S. Bureau of Labor Statistics (BLS) Wage Surveys

The Bureau of Labor Statistics produces wage surveys in the following areas:

- Industry Wage Surveys—These surveys provide data for selected occupations to represent employment in the industry surveyed. BLS surveys 25 manufacturing and 20 nonmanufacturing industries accounting for over 22 million employees on a recurring basis, usually a 5-year cycle.
- Area Wage Surveys—These surveys provide wage data on occupational categories common to a variety of industries in 70 Metropolitan Statistical Areas (MSAs), including office clerical; electronic data processing, drafting, and industrial nurses; and maintenance toolroom, power plant, custodial, and material movement jobs.
- National Survey of Professional, Administrative, Technical, and Clerical Pay—This survey provides data on salary levels and distribution in private employment of occupation/work levels selected from accounting, legal services, personnel management, engineering, chemistry, buying, clerical supervisory, drafting, and clerical.

Wage data in such publications as *Employment and Earnings* are presented in broad terms of industries rather than by specific occupations. This is true in *Current Wage Developments* and in some area wage surveys.

Another related resource in this area is called *Covered Employment, Wages, and Contributions*. This report, published quarterly in each state, provides a detailed summary of monthly employment and wage information for workers covered by state unemployment insurance (UI) laws. The data are taken from quarterly reports submitted by individual employees and are part of a Federal-state cooperative program commonly called the ES-202 program.

In addition, a variety of agencies (both government and nongovernment), professional associations, trade groups, and employer groups conduct wage surveys for specific purposes. For example, many employer associations conduct wage surveys as part of the services for their members. There normally is no single reference for obtaining information from this data source. Each group should be contacted individually to determine the availability, frequency, and content of wage information. Among the organizations that may conduct such surveys are the following:

- Other Federal agencies (e.g., U.S. Office of Personnel Management)
- State health councils and hospital associations
- Associations of states, cities, and counties
- Industry and trade councils and professional associations

- Employers' associations
- U.S. Chamber of Commerce which publishes an annual research study dealing with employee benefits

County Business Patterns

County Business Patterns (CBP) is actually a series of publications, including one for the U.S. summary, one for the MSAs, and one for each state. These publications present employment and payroll statistics by county and by industry for every county, MSA, and state in the nation. Summary data are provided on number of employees for the mid-March pay period, first quarter total payroll, total number of establishments, and the number of establishments by employment-size class. Data are tabulated by detailed kinds of business based on the Standard Industrial Classification (SIC).

CBP is useful in determining the industrial composition by SIC and by firm size for industrial identification or analysis. It also is used in locating potential industries with expanding firms or payrolls by county. By comparing county information to state or national information, one can identify potential industries for placement.

CBP is published by the U.S. Department of Commerce, Bureau of the Census. The publications are available through the U.S. Government Printing Office, Washington, DC 20402. Because the size of the CBP varies, the cost also is variable.

Industry-Occupation Employment Matrix

The national industry-occupation (I-O) matrix is designed to produce data on current and projected occupational employment by industry. Data in the matrix are compiled primarily from the Occupational Employment Statistics (OES) Survey, a mail survey designed to collect current data on wage and salary occupational employment by industry.

The matrix is actually a table depicting the occupational employment structure of industries. For each industry included, the matrix presents the proportion of total employment accounted for by each detailed occupation. By transforming rows into columns of the I-O matrix table, it is possible to identify how total employment in a specific occupation is distributed by industry. Both the I-O matrix and the transposed matrix show the relationship between occupation and industry and, at once, show where people work (industry) and what they do (occupation). The *National Industry-Occupation Employment Matrix* documents contain both an I-O matrix and a transposed occupation-industry matrix.

All states develop an industry-occupation matrix for the state. Most states also develop a matrix for substate areas, such as metropolitan areas or school planning districts. These matrices form the basis for occupational projections developed by state agencies, usually the Research and Analysis Division of the State Employment Security Agency (listed in Appendix F).

For the counselor, the matrices have two important uses: (1) the I-O matrix illustrates the occupational composition of employment within each industry and (2) the transposed matrix illustrates the industrial location of employment for various occupations. If a client is interested in a particular industry, you can use the I-O matrix to identify particular occupations employed within

the industry. Conversely, if a client is interested in a particular occupation, you can identify the different industries where that occupation may be employed.

The National Industry-Occupation Matrix (Volumes I and II) is available in several output formats from the National Crosswalk Service Center, Iowa State Occupational Information Coordinating Committee, 525 E. 12th Street, Des Moines, Iowa 50319. Costs vary.

Education and Training Programs

The following is a very brief overview of some of the main resources of information on education and training programs and institutions. Although there are other sources, these appear to be relevant to counselor needs and interests.

The most important program resources are as follows:

- Vocational Education Data System (VEDS)—This system provides data on the vocational education programs offered at public high schools, area vocational schools or centers, and community colleges.
- The *Directory of Postsecondary Schools with Occupational Programs*—This document is published biannually by the National Center for Education Statistics. It contains all known public and private schools that offer occupational programs at less than the baccalaureate level.
- School catalogs and pamphlets—Although there is no uniformity in content, these materials are obtained directly from the providers and thus represent a unique source of information.
- Comprehensive 5-year state plans—These plans are prepared for vocational education, vocational rehabilitative services, and special education programs that receive Federal funding. The plans normally are available from each state department of education.
- Job Corps—This Federal program publishes pamphlets that describe the available training programs.

The most significant primary source of information on institutions, the school catalog, provides a wide range of information on tuition, courses, and requirements. In addition, state departments of education usually publish lists of the public schools, vocational-technical schools, community colleges, state colleges, and universities. Also, the National Center for Education Statistics (NCES) publishes detailed national directories, such as the *Education Directory, Colleges and Universities*. One of the most useful publications by the NCES is *The Condition of Education*. It is a statistical report, published annually, that is loaded with charts and graphs on elementary and secondary education, higher education, vocational and adult education, and teacher preparation. Other relevant information is published by proprietary organizations, such as *Lovejoy's Guide to Colleges and Universities* and *Barron's Guide to Colleges and Universities*.

Other LMI Products

Several other valuable LMI products are described briefly below.

Current occupational employment

Current Population Survey. The Current Population Survey (CPS) collects data on economic and social characteristics of persons who are working (employed), looking for work (unemployed), and not in the labor force. Specifically, it collects and reports information on work schedules; work experience; national, state, and local earnings; and overtime hours and premium pay. The CPS also collects data on personal characteristics of workers, such as age, sex, race, national origin, educational attainment, marital status, and family characteristics. In addition, it collects information each month on the distribution of workers by occupations and industries and by the number of hours worked during the survey week. The BLS publishes national occupational information from CPS data in *Employment and Earnings* and publishes state and Metropolitan Statistical Area (MSA) data in *Geographic Profile of Employment and Unemployment.*

Current unemployment by occupation

Unemployment Insurance (UI) system. Statistics drawn from the payment of UI benefits provide useful information on the number of unemployed persons by industry, occupation, and location. Statistical summaries are published by the U.S. Department of Labor in *Unemployment Insurance Statistics.*

Current Population Survey (CPS). The CPS also is a source of frequently updated data on unemployment and employment by occupation. The BLS publishes monthly national estimates of unemployment and employment for major occupational groups.

Job vacancies

Employment Service operations. The Employment Service offers extensive information on present job openings. Several reporting systems provide relevant data.

State employment security agencies (SESAs) may prepare monthly and quarterly statistical reports summarizing nonagricultural job openings by DOT code, local office, and sometimes by the Metropolitan Statistical Area (MSA). They also indicate how long the job has been open.

It should be noted that estimates of future job openings by occupation are published regularly by SESAs. The data normally are provided on an average annual basis covering a specified time period. The estimates of average annual job openings by occupation usually are presented under the following table headings in SESA publications: Openings Due to Growth, Openings Due to Separations, and Total Average Annual Job Openings.

Labor force, employment, and unemployment trends

Current Population Survey (CPS). The CPS also provides data on such personal characteristics as age, sex, educational attainment, marital status, race, and family status. It provides esti-

mates of persons in the work force, their distribution by state and metropolitan area, and their industry and occupation/employment attachment.

Current Employment Statistics (CES) program. This program publishes a large number of series on employment, working hours, and earnings by industry detail. Each series is broken down by total employment, nonsupervisory work employment, women employed, average hourly earnings, average weekly hours, and average weekly overtime hours.

Employment, Wages, and Contributions, ES-202, Contributions Tax System. The ES-202 is a quarterly report that provides summary information by state, county, and Metropolitan Statistical Area (MSA) of employment and wages paid in covered employment by industry.

Local area unemployment statistics (LAUS). Estimates of the total number of unemployed, total unemployment, and the unemployment rate are provided through this program.

Several LMI publications provide analyses of labor force, employment, and unemployment trends. These publications, developed by some of the research and statistics units of the state employment security agencies (SESAs) or by the BLS, include the following:

- Labor market information newsletters—published by SESAs
- Annual planning information—published by SESAs for planners
- Labor market reviews—published annually by many SESAs, these publications represent the most comprehensive ones in state LMI programs
- Directories of labor market information—published by the SESAs
- Affirmative Action information—published by the SESAs; provides LMI for Federal contractors for their affirmative action programs

APPENDIX B

GUIDELINES FOR THE PREPARATION AND EVALUATION OF CAREER INFORMATION LITERATURE

Guidelines for the Preparation and Evaluation of Career Information Literature

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NATIONAL VOCATIONAL GUIDANCE ASSOCIATION

These Guidelines are designed to be used by both the publishers and the consumers of career information literature. Because career literature is often an individual's initial (and sometimes only) exposure to a specific occupation or occupational field, it is very important that this information be accurately and comprehensively conveyed to the user. The Guidelines represent the National Vocational Guidance Association's (NVGA) views of what constitutes good career literature. The Association encourages the Guidelines' use by publishers to ensure quality control in their publications and by those who select and use career literature to ensure maximum value from their purchases.

In addition to their evaluative use on the local level, these guidelines also form the basis for the ratings of current career literature by the Career Information Review Service of NVGA. These ratings appear in each issue of *The Vocational Guidance Quarterly* to assist professionals in their selection of quality career information literature.

GENERAL GUIDELINES

This section discusses items that are related to the general preparation and presentation of career literature.

These guidelines are a revision of the NVGA guidelines for career literature published in 1971. This revision was prepared under the direction of James Calliotte, Old Dominion University, Norfolk, Virginia (CIRS Chairperson) with the assistance of the Career Information Review Service Committee of the National Vocational Guidance Association.

Source: National Vocational Guidance Association. (June 1980). *Guidelines for the preparation and evaluation of career information literature. Vocational Guidance Quarterly, 28.* 291-296.

1. Accuracy of Information

Information should be accurate and free from distortion caused by self-serving bias or dated resources. Information should be secured from and/or reviewed by knowledgeable sources within the occupation, career field, or industry. Data such as earnings and employment projections should be based on current, reliable, and comprehensive research.

2. Format

The information should be conveyed in a clear, concise, and interesting manner. Although information from the Content Guidelines should appear in all publications, publishers are encouraged to vary the manner of presentation for the sake of stimulation and appeal.

3. Vocabulary

The vocabulary level of the information should be appropriate to the target group. Career information is used by people of varying age and ability levels. Information designed for a specific age range should be clearly identified as such. Information designed for broader use should be comprehensible to younger persons but suitable in style for adults. Technical terminology or jargon pertinent to the career should be either fully explained or avoided.

4. Bias and Stereotyping

Care should be taken in all publications to eliminate sexual, racial, social, ethnic, age, or religious bias and stereotyping. Job titles and information should be written in a bias-free manner. Particular care should be taken to ensure the use of gender-free language. If graphics are used, people of different races, ages, and sexes should be portrayed at various occupational levels. Where applicable, data, information, or resources relevant to equal opportunity for women, minorities, or handicapped persons should be included.

5. Graphics

Graphic displays, when used, should enhance the value of the narrative information. Pictures should be current and portray individuals engaged in activities primary in or unique to the occupation. Again, the importance of portraying individuals of different sexes, races, and ages in nonstereotypical roles cannot be overemphasized.

6. Dating and Revisions

The date of publication should be clearly indicated. Because of rapid changes in employment outlook and earnings, material should be revised at least every two to three years to stay current and accurate.

7. Credits

Credits should include: (a) publisher, (b) consultants, (c) sponsor and, (d) sources of any statistical data.

CONTENT GUIDELINES

This section discusses guideline items that deal with the content of information on occupations, career fields, and/or industries.

1. Duties and Nature of the Work

The career literature should describe in a clear and interesting fashion: (a) the purpose of the work, (b) the activities of the worker, (c) the skills, knowledge, and interests necessary to perform the work, and (d) any specializations commonly practiced in the occupation. Literature that describes career fields (e.g., health) or industries (e.g., steel manufacturing) should also include: (a) the overall function and importance of the field or industry, (b) the variety of occupations available, (c) the common aspects shared by members of the field or industry, and (d) contrasts among the various occupations represented in the field or industry.

2. Work Setting and Conditions

The portrayal of the work setting and conditions should include a description of the physical activities and the work environment. Where applicable, the information should include the full range of possible settings in which the work may be performed. The range of typical physical activities should be enumerated. Environmental characteristics should include both the physical surroundings and the human environment (i.e., that created by the interactions among people). In addition to these characteristics, other conditions related to the performance of the work, such as time requirements or travel, should be described.

Aspects of the work that might be regarded as undesirable are as crucial to realistic decision making as those that are generally con-

sidered to be desirable; therefore, care should be taken to make descriptions as comprehensive as possible.

In career fields or industry literature, the variety and similarity of settings should be discussed. In industry literature, specific geographic locations related to employment in the industry should be included.

3. Personal Qualifications

The enumeration of qualities required of *any* worker (e.g., dependability) is not particularly valuable to individuals attempting to differentiate various career possibilities. Personal qualities unique to the particular occupation should be pointed out. The particular values and personal characteristics shared by members of the occupation are as important to successful performance as skills and abilities, and should be given similar consideration.

4. Social and Psychological Factors

Participation in an occupation has important effects on the life-style of the individual and these effects, pro and con, should receive appropriate consideration in the presentation of information. In addition, specific satisfactions and limitations are inherent in every occupation and should be presented as thoroughly as other characteristics of the occupation. Publishers and authors should be especially aware of the need to depict careers realistically and without personal bias. To engage in effective decision making, readers should have sufficient social and psychological information about an occupation to compare with their understanding of their own needs and values.

5. Preparation Required

The preparation required for entrance into the occupation, or into various levels of an occupation, should be clearly stated. The length and type of training required and the characteristics of successful students or trainees should be indicated. Typical methods of financial support during training should be included. Alternative means of obtaining the necessary preparation or experience should be stated where applicable. Readers should be informed of any preferred selection criteria over and above minimal preparation requirements. In literature that describes a range of occupations in a career field or industry, the various levels of preparation required for employment should be highlighted.

6. Special Requirements

Certain physical requirements or personal criteria may be necessary for entrance into a particular occupation. Licenses, certifications, or memberships may also be required for some occupations. These requirements should be indicated and the process necessary for achieving any of these requirements should be described.

7. Methods of Entering

The variety of means for typical entry into the occupation should be indicated, as well as any preferred avenues for entry. Alternative approaches should be described where applicable—particularly for those occupations where experience can be substituted for more formal preparation.

8. Earnings and Other Benefits

Current data on average earnings in the occupation should be presented. In addition, the typical range of earnings within the occupation should be reported. Fringe benefits have become an increasingly important aspect of total compensation, and ample coverage of both typical benefits and those that are unique to the occupation, career field, and/or industry should be given.

9. Usual Advancement Possibilities

The typical career ladder related to the occupation should be shown. The supplementary skills necessary for advancement and the usual means for acquiring them should be indicated. Readers should also be informed of any different or additional personal characteristics required for successful performance at higher levels of the career ladder. Issues such as the role of job change, availability of training, and seniority should be discussed as they pertain to advancement in the particular career.

10. Employment Outlook

Statements concerning the employment outlook should be realistic and include both the short- and the long-range outlook for the occupation, career field, or industry. A broad range of factors including economic, demographic, technological, geographic, social, and political should be considered. Current Department of Labor or other expert research should be consulted. Realism is essential, but

readers should not be discouraged from entering highly competitive fields if they have the necessary ability, interest, and motivation to succeed.

11. Opportunities for Experience and Exploration

Literature should list opportunities for part-time and summer employment and opportunities for volunteer work. Pertinent clubs and organizations, as well as school-related activities and programs should be described. Publishers are encouraged to give sufficient attention to this guideline because these career-related possibilities can be acted on in the present and thus have high motivational value.

12. Related Occupations

Alternate occupations that share similar aptitudes and interest patterns and/or work environments with the occupation currently under consideration should be listed. In addition to its value in early exploration, this information is particularly useful to adults considering lateral occupational changes.

13. Sources of Education and Training

Schools and other agencies providing opportunities for preparation and training for the occupation should be indicated. Reference may be made to standard guides where appropriate.

14. Sources of Additional Information

Reference should be made to additional sources of information such as: professional or trade organizations and associations, specific books or pamphlets, journals or trade publications, audiovisual materials, and literature available from various public agencies. For students, the assistance of school guidance counselors or college placement counselors may be recommended.

REFERENCE

National Vocational Guidance Association. *Guidelines for the preparation and evaluation of career information media.* Washington, D.C.: American Personnel and Guidance Association, 1971.

APPENDIX C

DESIGNATED VOCATIONAL/CAREER COMPETENCY AREAS

Designated Vocational Career Competency Areas

In order to work as a professional engaged in Vocational/Career Counseling, the individual must demonstrate minimum competencies in six designated areas. These six areas are: *General Counseling, Information, Individual/Group Assessment, Management/Administration, Implementation, and Counseling.*

General Counseling—Counseling competencies considered essential to effective vocational/career counseling.

Information—Information base and knowledge essential for professionals engaging in vocational/career counseling.

Individual/Group Assessment—Individual/Group Assessment skills considered essential for professionals engaging in vocational/career counseling.

Management/Administration—Management/Administration skills necessary to develop, plan, implement, and manage comprehensive career development programs.

Implementation—Knowledge and skills essential to the adoption of career development programs and strategies in a variety of settings.

Consultation—Knowledge and skills essential in relating to individuals and organizations that impact the career development process.

Vocational Career Counseling Competencies

General Counseling Skills

Counseling competencies considered essential to effective vocational/career counseling.

Demonstration of:

1. Knowledge of general counseling theories and techniques.
2. Skills in building a productive relationship between counselor and client.
3. Ability to use appropriate counseling techniques in effectively assisting individuals with career choice and life/career development concerns.
4. Ability to assist the client to recognize the relationship between self-understanding and effective life/career decisions.
5. Ability to assist the client in the identification of internal personal factors related to life/career decision making including personality, values, interests, aptitudes, and motives.
6. Skills in recognizing and modifying stereotypes held by clients related to career choice.
7. Ability to assist the client in the identification of contextual factors in career decision making including family, friends, educational opportunities, and finances.
8. Ability to understand and help clarify the client's decision making processes.

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Information

Information base and knowledge essential for professionals engaging in vocational/career counseling.

Demonstration of:

1. Knowledge of education, training, employment trends, labor market, and career resources that provide information about job tasks, functions, salaries, requirements, and future outlooks related to broad occupational fields.

2. Knowledge of basic concepts related to vocational/career counseling including career development, career pathing, and career patterns.

3. Knowledge of career development and decision making theories.

4. Knowledge of the changing roles of women and men and the linkage of work, family, and leisure.

5. Knowledge of strategies to store, retrieve, and disseminate vocational/career information.

Individual and Group Assessment

Individual/Group Assessment skills considered essential for professionals engaging in vocational/career counseling.

Demonstration of:

1. Knowledge of appraisal techniques and measures of aptitude, achievement, interest, values, and personality.

2. Knowledge of strategies used in the evaluation of job performance, individual effectiveness, and program effectiveness.

3. Ability to identify appraisal resources appropriate for specified situations and populations.

4. Ability to evaluate appraisal resources and techniques in terms of their validity, reliability and relationships to race, sex, age, and ethnicity.

5. Ability to demonstrate the proper administration of appraisal techniques.

6. Ability to interpret appraisal data to clients and other appropriate individuals or groups of people.

7. Ability to assist clients in appraising quality of life and working environments.

Management/Administration

Management/Administration skills necessary to develop, plan, implement, and manage comprehensive career development programs.

Demonstration of:

1. Knowledge of program designs that can be used in the organization of career development services.

2. Knowledge of needs assessment techniques and practices.

3. Knowledge of performance objectives used in organizing career development programs, and setting goals and comprehensive career development programs.

4. Knowledge of management concepts and leadership styles used in relation to career development programs.

5. Ability to adjust management and administration methods to reflect identified career development program problems, and specified situational needs.

6. Ability to prepare budgets and time lines for career development programs.

7. Ability to design, compile, and report an evaluation of career development activities and programs.

Implementation

Knowledge and skills essential to the adoption of career development programs and strategies in a variety of settings.

Demonstration of:

1. Knowledge of program adoption and planned change strategies.
2. Knowledge of personal and environmental barriers affecting the implementation of career development programs.
3. Ability to implement individual and group programs in career development for specified populations.
4. Ability to implement a public relations effort in behalf of career development activities and services.
5. Ability to devise and implement a comprehensive career resource center.
6. Ability to implement pilot programs in a variety of career development areas including: appraisal, decision-making, information giving, and general career counseling.

Consultations

Knowledge and skills considered essential in relating to individuals and organizations that impact the career development process.

Demonstration of:

1. Knowledge of consultation strategies and consultation models.
2. Ability to provide effective career consultation to influential individuals such as parents, teachers, employers, community groups, and the general public.
3. Ability to provide career development consultation to Business and Professional groups.
4. Ability to convey program goals and achievements to key personnel in positions of authority: legislators, executives, and others.
5. Ability to provide data on the cost effectiveness of career counseling and career development activities.

APPENDIX D

A BRIEF INTRODUCTION TO THE MILITARY SERVICES

A Brief Introduction to the Military Services

The purpose of this appendix is to provide an overview of the military recruitment process under a voluntary system of service and to provide information about contact persons who are available to assist counselors in understanding the military. It also provides introductory information about the Department of Defense (DoD) student testing program.

All people enter the military as either enlistees or officers. The military is the largest employer of high school graduates entering today's work force.

This appendix is designed to provide limited information about how young persons come into the military. There are many differences among the five services. The *Military Career Guide* provides summary information for the enlistment programs and occupations available by each service.

What Is the Recruitment Process?

Because the five services are national employers, they have recruiters in most cities. Recruiters describe the work, pay, benefits, training, travel, and retirement programs to youth. Recruiters screen applicants for moral, physical, and aptitude potential.

Entering the Military - Enlisted

Enlisting in the military involves a four-step process.

Step 1: Talking with a Recruiter

If a young person is interested in applying for one of the military services, he/she must talk with a recruiter from that service. Recruiters can provide detailed information about the employment and training opportunities in their service as well as answers to specific questions about service life, enlistment options, and other topics. They can also provide details about their service's enlistment qualification requirements.

If a young person decides to apply for entry into the service and the recruiter identifies no problems (such as a severe health problem), the recruiter will examine the youth's diploma or other educational credentials. The recruiter will then schedule the youth for enlistment processing.

Step 2: Qualifying for Enlistment

Enlistment processing occurs at 68 Military Entrance Processing Stations (MEPS). Applicants must take the Armed Services Vocational Aptitude Battery (ASVAB) and receive medical examinations to determine if they are qualified to enter the service.

ASVAB results are used to determine if an applicant qualifies for entry into a service and if the applicant has the specific aptitude level required to enter job specialty training programs. If the youth has taken the ASVAB in high school or postsecondary school, he/she can use those scores to determine if he/she qualifies for entry into the military services, provided the scores are not more than 2 years old. Applicants with current ASVAB scores are not required to take the ASVAB a second time.

Eligibility for enlistment is also conditional upon qualification under prescribed age, physical, and moral standards.

Step 3: Meeting with a Service Classifier

A service classifier is a military career information specialist who helps applicants select a military occupational field. For example, the classifier would inform him/her of service job training openings that match the applicant's aptitudes and interests. Specifically, the classifier would enter the applicant's ASVAB scores into a computerized reservation system. Based on the applicant's scores, the system would show the career fields and training programs for which the applicant would qualify and when job training would be available.

After discussing job training options with the classifier, the applicant would select an occupation and schedule an enlistment date. Enlistment dates may be scheduled for up to 1 year in the future to coincide with job training openings.

Following selection of a military training program, the enlistee would sign an enlistment contract and take the oath of enlistment. If the applicant chose the Delayed Entry Program option, he/she would return home until the enlistment date.

Step 4: Enlisting in the Service

After completing enlistment processing, applicants who select the immediate enlistment option receive their travel papers and proceed to a military base for basic training. Applicants who select the Delayed Entry Program option return to the MEPS on their scheduled enlistment date. At that time, applicants officially become "enlistees" (also known as "recruits") and proceed to a military base.

In the uncommon event that the applicant's guaranteed training program, through no fault of the applicant, is not available on the reserved date, three options apply:

- Make another reservation for the same training and return at a later date to enter the service;
- Select another occupation and reserve training;
- Decide not to join the service and be free from any obligation.

Entering the Military - Officer

To join the military as an officer, applicants generally must have a 4-year college degree. Certain scientific and technical fields, such as medicine or law, require advanced degrees. To become a commissioned officer, there are four main pathways:

(1) Service Academies;

(2) Officer Candidate Schools (OCS)/Officer Training Schools (OTS);

(3) Reserve Officers' Training Corps (ROTC); and

(4) Direct Appointment.

A description for each pathway is in the *Military Career Guide.*

What is the DoD Student Testing Program?

The Armed Services Vocational Aptitude Battery (ASVAB) was first offered to schools by the Department of Defense (DoD) in 1966. Since that time, it has become an integral component of many schools' testing programs, and, today, over 1.3 million students in approximately 14,000 schools take the ASVAB annually.

The ASVAB can be used for both military and civilian career counseling. Scores from this test are valid predictors of success in training programs for enlisted military occupations. ASVAB results can be useful to students as part of the career development process.

Many resource people are involved in the DoD Student Testing Program. Resource people are available from DoD to assist counselors and youth. In general, the local recruiter is the military service representative who is the first point of contact for counselors. At times, however, counselors may be in contact with some of the other resource people. Descriptions of the major resource people affiliated with the DoD Student Testing Program are provided below.

Recruiters

Recruiters from each service identify and screen individuals for their service. Recruiters contact prospective enlistees, including those who have been in the service and have returned to civilian life. They advise prospective enlistees about job and career opportunities in their service and perform administrative duties associated with personnel enlistment and reenlistment. As part of their duties, recruiters contact schools regarding the ASVAB and make preliminary arrangements for testing. Types of personnel performing recruiting activities vary by service.

Test Specialists

Test specialists are currently employed at over 40 Military Entrance Processing Stations (MEPS). Test specialists will soon be available at all 68 MEPS around the country. Test specialists are civilian government employees with training and experience in teaching or counseling. Their duties include marketing the ASVAB and assisting recruiters and school counselors with test interpretation.

Education Coordinators and Specialists

Education coordinators and specialists are civilian government employees with training and experience as teachers or school counselors. The Army and the Navy have supplemented their recruiting forces with these individuals. The Army refers to them as education coordinators; in the Navy, their job title is education specialist. These individuals act as liaisons between recruiters and local educators. These people communicate with recruiters about various aspects of their area's education community, and they facilitate recruiter activities in the schools. Currently, the Army and Navy each have more than 50 people working in this capacity. Navy education specialists are assigned to Navy Recruiting Districts. The Army assigns education coordinators to Recruiting Battalions. The Air Force and Marine Corps also employ a number of education specialists who work at the headquarters level.

Test Coordinators

Each MEPS has a test coordinator who schedules ASVAB testing in the schools. The test coordinator finalizes testing dates, determines the availability of test administrators and proctors, and ensures that ASVAB results are returned to the school.

Test Administrators and Proctors

The ASVAB is administered by qualified test administrators from the Department of Defense or the U.S. Office of Personnel Management. Because results from the ASVAB can be used to qualify individuals for entrance into the military services, test security is important. The test administrators have direct responsibility for the security of the test booklets. School personnel are encouraged to participate as proctors. The MEPS' test coordinator can provide advice to school personnel regarding the need for proctors.

Military Counselors at MEPS

Each service has a military counselor at the MEPS who discusses specific programs with young people, helps them to make decisions, and writes the contracts that guarantee job training to applicants. These counselors officially advise applicants about training that will be available, and they determine if an applicant is eligible for a desired training program.

ASVAB Hotline Personnel

There is an ASVAB hotline, at the U.S. Military Entrance Processing Command (USMEPCOM). If counselors need additional questions answered, they can call USMEPCOM toll-free at (800) 323-0513. In Illinois, counselors can call collect (312) 688-6908.

APPENDIX E

A BRIEF INTRODUCTION TO THE AMERICAN LABOR MOVEMENT

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A Brief Introduction to the American Labor Movement

This appendix is adapted from Unit 7 of the *Improved Career Decision Making through the Use of Labor Market Information* 1983 workbook developed at North Texas State University.

Introduction

American unions work for the economic well-being of their members. They negotiate through collective bargaining for wages and working hours, sick leave, time off for holidays and vacations, cost-of-living raises, and such fringe benefits as pension, health, and medical care plans. They also bargain for hiring, firing, promotion, and layoff policies; work rules; and occupational safety and health.

The three layers in the structure of organized labor in America are the local unions, national or international unions, and the federation of national or international unions (AFL-CIO). The local unions are the single chapters or lodges of a national union. A member joins a local and pays dues to it. Usually, the local signs the collective bargaining agreement. The bylaws and practices of the local reflect the policies of the union at the national level.

The following are some of the main questions about the labor movement that you may ask, particularly as they relate to your role as a counselor.

What Is the Apprenticeship Program?

One way that workers learn the practical and theoretical aspects of work required for some skilled occupations is through apprenticeships. These are a combination of on-the-job training and related technical instruction. Programs often are operated jointly with labor and management. The apprentice attends classes at local vocational schools or junior colleges, or takes home-study courses.

Most trades require 3 to 4 years of apprenticeship training. Apprentices are paid at progressive wage rates that start at about half a journeyperson's rate and move up to 95% full pay near the end of the apprenticeship.

There are over 500 skilled, apprenticeable trades. Among these are auto mechanic, baker, bricklayer, carpenter, electrician, machinist, operating engineer, optical technician, painter, roofer, sheet metal worker, structural steel worker, and tool and die maker.

The U.S. Department of Labor Apprenticeship Program serves men and women at least 16 years of age who are eligible. They must be physically able to do the work. For some trades, they must have a high school diploma or certificate. Your local employment service office or AFL-CIO office can tell you more about the programs and apprenticeable trades in your area.

What Are Labor Hiring Halls?

Although many men and women successfully obtain job and apprenticeship leads at local union offices, in some industries a central hiring hall operates to match workers and job openings. Normally, hiring halls are initiated in industrial situations when there exists an "unstable relationship" between employers and individual workers. This generally is due to dramatic fluctuations in employers' labor needs at various periods in the production, distribution, or agricultural cycles.

Labor markets that serve these industries, including agriculture, construction, and maritime, often are referred to as casual labor markets, since these jobs (while continuously reoccurring) are irregular, uncertain, of short duration, and subject to chance. Jobs in the construction industry, for example, are adversely affected by weather conditions, the general economic situation, and shifts in such variables as interest rates. For several reasons, the supply of construction and other casual workers generally is in excess of demand. As a result, employers respond to shifts in their need for workers by maintaining only small cadres of full-time supervisors and key skilled workers. They supplement their work force with workers attached to the industry when their volume of business increases. In the absence of hiring halls, individual employers throughout a casual industry are prone to maintain their own labor reserves in order to meet the labor requirements of their peak employment periods, resulting in excess reserves for the total industry.

Hiring halls originated in attempts to establish centralized procedures in those industries characterized by casual relationships between workers and employers. Although actual operating procedures may vary widely in degrees of formality, most hiring hall operations share several common features: employers in the industry must hire workers through the hiring hall and not from other sources; workers in the local industry must register for employment with the hiring hall when they are seeking work; there is an established order in which workers are matched with employers; and the hiring hall is empowered to assign workers to jobs, even in some situations over the objections of the worker or the employer.

Although unions most often are in charge of hiring halls, it should not be assumed that hiring halls are the creation of unions alone. The New York Waterfront Commission instituted hiring halls for the Port of New York City in 1953. Associations of nonunion construction contractors recently have initiated hiring halls, in part to reduce search costs and the uncertainty over labor quality for contractors doing business in unfamiliar locations. Local citrus growers also have created areawide hiring halls in recent years.

Studies of hiring halls have found that, contrary to some popular opinion, the operation of hiring halls in casual labor markets provides significant benefits and efficiencies to workers, employers, and society. The opportunity for corruption associated with the necessity of workers to pay kickbacks to dishonest company representatives is reduced considerably with effective rules governing worker assignments.

For the recent graduate seeking employment in a local industry covered by a hiring hall, consideration should be given to informal procedures that characterize some hiring hall operations. Such procedures have developed because rigid rules frequently do not serve the needs of workers or employers or both. Therefore, a wide array of flexible operations have evolved (e.g., within certain limits, employers may retain the right to accept or reject any worker referred as well as specify particular skill requirements as part of their work orders).

In turn, many hiring halls grant workers limited rights to refuse jobs of short duration or unpleasant environments. Lastly, workers and employers usually are free to seek each other out and make their own hiring arrangements, especially in periods of high employment.

The beneficial aspects of hiring halls are well recognized by participants in casual labor markets. Persons who seek work in the construction, maritime, and other industries with casual labor market characteristics are advised to explore in detail the nature of hiring hall arrangements.

Several questions regarding the background as well as the contemporary status of the American labor movement are discussed next.

What Is the American Federation of Labor and Congress of Industrial Organizations?

The AFL-CIO is not a union. It is a federation of 98 national unions, with a membership of over 14.2 million members. Most of the unions are called international unions because they have members in both the United States and Canada. Canada, however, also has its own federation. The AFL-CIO has existed since 1955, when the AFL and CIO merged.

The major governing body of the AFL-CIO is the biennial convention. Between conventions, policy is set by a 35-member executive council made up of the 2 federation officers, plus principal officers from 33 major unions.

The AFL-CIO celebrated its centennial in 1981. The event dated from the November 1881 founding of the Federation of Organized Trades and Labor Unions, which became the AFL 5 years later. The AFL has been led by Samuel Gompers, William Green, George Meany, and, currently, Lane Kirkland. The CIO was founded in 1935. Its three presidents were John L. Lewis, Philip Murray, and Walter Reuther. Meany and Reuther were the architects of the 1955 merger after they succeeded William Green and Philip Murray, respectively, in 1952.

Nationally, the federation is organized into seven regions. Within those regions are 51 state AFL-CIOs and 744 local central bodies.

How Did the Labor Movement Develop?

Around the beginning of the 1800s, workers in many trades began to form local unions to engage in collective bargaining over such matters as wages and hours. Among the earliest workers to engage in collective bargaining were shoemakers, tailors, and printers. Although employers often turned to the courts to resist what they considered to be intrusion, workers perservered in their efforts to form unions and engage in collective bargaining. In 1827, unions in Philadelphia became well-enough established to form the first citywide federation, a delegate body representing 15 unions.

In 1842, the legality of trade unionism was first established by an American court. In the landmark case of the Commonwealth of Massachusetts versus Hunt, the court held that workers could legally form unions to engage in collective bargaining with employers over wages, hours, and related issues as long as they pursued "virtuous ends by virtuous means."

The years that followed showed some significant improvements in worker conditions (e.g., the slow but gradual decline in the length of the average working day from about 13 to 10 or 12 hours in most factories). Collective bargaining spread to almost every craft and to a majority of cities.

The advances of post-Civil War industrialism hastened the growth of unions. Several national unions came into existence, including organizations of printers, machinists, and locomotive engineers. Workers learned that union efforts in the city could be frustrated if employers could send the work to other cities where working conditions were not as good and, therefore, the work could be done cheaper. On the other hand, good working conditions negotiated by a union in industries (such as housing construction) in which the work itself could not be moved attracted a surplus of labor from the surrounding area, thus making it difficult for the union to maintain the standards it had won. National unions developed from the understanding that effective collective bargaining could not take place in any industry if a substantial part of that industry was nonunion.

By 1869, there were 24 national unions. In that year, the first truly national organization of workers was established. The Knights of Labor attempted to unify workers regardless of their craft, without regard to race, nationality, sex, or creed. The Knights' program called for major reforms, such as an 8-hour work day, equal pay for equal work by women, abolition of child and convict labor, public ownership of utilities, the formation of cooperatives, and, in essence, the peaceful replacement of a competitive society with a cooperative one.

In the early 1880s, representatives of a number of craft unions, dissatisfied with the policies of the Knights, formed their own group, the American Federation of Labor. The AFL operated with three guiding principles: (1) business unionism—short-run "bread and butter" improvements in wages and working conditions and long-range improvements through evolution; (2) voluntarism—a policy of opposition to government interference in all matters related to labor organization and negotiations with management; and (3) federalism—an organizational policy of autonomous national and international unions, each controlling its own trade specialty. With the growth of the AFL, the Knights' importance declined. Membership in the AFL exceeded 1 million by the turn of the century.

The Industrial Workers of the World (IWW) formed in the early 1900s. Popularly known as the "Wobblies," the members were mostly immigrant unskilled factory workers, miners, lumber workers, and dock workers. Their goals were to unite all workers into "one big union" and replace capitalism with socialism. The IWW numbered about 109,000 workers by 1912. Membership declined thereafter, with the imprisonment of almost 100 of its leaders on charges of sedition.

By World War I, union membership reached 5 million. A setback to the unions occurred during the 1920s, when the Federal government withdrew its limited protection of labor's right to organize. Employers began refusing to recognize unions. However, during the Depression of the 1930s, the labor movement advanced. In 1932, Congress passed legislation, the Norris-LaGuardia Act, which modified or eliminated some of the worst abuses against organized labor. The National Labor Relations Act (known as the Wagner Act) was passed in 1935. This legislation guaranteed the right of workers to organize and bargain collectively through representatives of their own choosing. It forbade employers from engaging in unfair labor practices, such as discriminating against unionized workers, establishing a company union, or refusing to bargain in good faith with a recognized union. The Wagner Act established the National Labor Relations Board to enforce the act and to supervise free elections among employees seeking to determine which union should represent the workers. Under this legal umbrella, the labor movement flourished. By 1940, union members totaled 19 million.

In 1938, some unions in the AFL that had opposed the craft orientation of the AFL were expelled from the federation. They argued that craft unions were "horizontal" unions and were not adapted to the needs of modern industry, with its emphasis on mass production and hierarchies of skilled labor. They called for industrial unions, "vertical" unions that could organize workers by industry rather than craft. Organizers from these expelled unions formed the Congress of Industrial Organizations (CIO) in 1938. The CIO organized previously unorganized workers by the millions in the auto, steel, and other mass production industries. Both the AFL and the CIO continued to flourish through World War II. Union membership quadrupled between 1935 and the end of WW II.

At the end of the war, wartime price controls were lifted. Prices rose faster than wages. Strikes broke out in many major industries during 1945 and 1946. Anti-union sentiment grew in the Congress and resulted in the passage of restrictive legislation. The Labor-Management Relations Act (Taft-Hartley Act) of 1947 amended the 1935 Wagner Act. Although Taft-Hartley maintained some rights afforded by the earlier Wagner Act, it introduced many restrictions. It outlawed "unfair labor practices," such as coercion of workers to join a union, failure of a union to bargain in good faith with an employer, jurisdictional strikes (arguments between unions over which will perform particular jobs), and "featherbedding." The latter were rules that were imposed on employers to increase the demand for labor or amount of labor time on a job. Taft-Hartley also outlawed the "closed shop," a practice that allowed an employer to make union membership a condition of employment. However, the act permitted the "union shop." This allowed a nonunion employee to be hired on the condition that the person join the union after he or she is employed. The act required unions to submit financial reports to the National Labor Relations Board and further required union officials to sign noncommunist affidavits. It prohibited strikes called before the end of a 60-day notice period prior to the expiration of a collective bargaining agreement. This was intended to allow time for conciliation prior to a walkout. Taft-Hartley enabled the president to obtain an 8-day court injunction to provide a cooling-off period in cases involving strikes that could endanger the national health or safety. Finally, Taft-Hartley also permitted legislatures to pass the so-called "right-to-work" laws, laws that made it illegal to require union membership as a condition of employment.

Some types of workers are exempt from the law. These include agricultural laborers, private household workers, independent contractors, supervisors, persons subject to the Railway Labor Act, public employees, and some hospital workers. Most, but not all, labor unions joined with the AFL or the CIO. Those not affiliated with any federation are called independents. (An example is the National Education Association. The American Federation of Teachers is the AFL-CIO union for organized teachers.)

What Is the Membership of the Unions?

Membership in this country's labor unions and professional and state employee associations totaled 23.9 million in 1980. Seventeen million workers were in AFL-CIO affiliates; unaffiliated unions reported 4.8 million members. In other words, union membership comprised nearly 21% of the total labor force in 1980 or 30.5% of all production/nonsupervisory employees. Three states with the highest number of nonfarm employees—New York, California, and Pennsylvania—accounted for almost one out of every three union members. These states, along with Illinois, Ohio, and Michigan, accounted for almost 52% of all union workers. In the 30 states that did not have the so-called "right-to-work" laws, 31.7% of the nonagricultural employees were organized, compared with 15.8% in the 20 states that had such restrictions.

Historically, union membership has been concentrated in a relatively small number of large unions. The unions with the largest membership are the Teamsters, the United Food and Commercial Workers, the Automobile Workers, Steelworkers, and the American Federation of State, County, and Municipal Employees (AFSCME).

Unionized women accounted for 11.6% of the total female labor force in 1978. In recent years, women union members have been more dispersed over a large number of unions. Substantially fewer unions now report an all-male rank and file. In 1978, women constituted at least 50% of all members in 26 unions. These unions account for 44.8% of all female members. Unions that claim 300,000 women members include the Teamsters, AFSCME, Food and Commercial Workers, Clothing and Textile, Service Employees, Electrical Workers (IBEW), and the American Federation of Teachers.

What Is the Occupational and Industrial Distribution?

In 1980, the number of white-collar union members was 7 million. These included 4.1 million professional and technical employees in such unions as Theatrical Stage Employees, Actors and Artists, Airline Pilots, Musicians, and the American Federation of Teachers. In 1978, reports on unions and associations indicated that 1.2 million union members were employed in sales positions.

In 1969, 64% of America's organized workers were employed in six industry categories: government—6.2 million; construction—2.9 million; transportation—1.7 million; services—2.0 million; wholesale and retail trade—1.7 million; and transportation equipment—1.1 million. Since 1956, when the U.S. Bureau of Labor Statistics first requested union data by industry, records indicate that unions have made their most sizable gains in government and the nonmanufacturing sectors. Except for 1960 and 1964, union membership in the manufacturing sector—as a proportion of the unionized work force—has declined.

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AFL-CIO economic program for jobs and fairness. (1983, March 19). *AFL-CIO Federationist, 90*, 2.

APPENDIX F

NETWORKING RESOURCES FOR ESTABLISHING LINES OF COMMUNICATION

Networking Resources for Establishing Lines of Communication

U.S. Department of Labor
Employment and Training Administration
Regional Offices

The Labor Department has divided the U.S. and its territories into 10 Federal regions. Each regional office has a Regional Administrator (RA) who heads Employment and Training Administration (ETA) activities for that region. For information for your region, contact the Regional Administrator at the appropriate office:

Region I

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
J.F. Kennedy Building
Government Center
Boston, MA 02203
(617) 223-6440

Region II

New Jersey, New York, Canal Zone, Puerto Rico, Virgin Islands
1515 Broadway, Room 3713
New York, NY 10036
(212) 944-3213

Region III

Delaware, Maryland, Pennsylvania, Virginia, West Virginia, DC
3535 Market Street, Room 13300
Philadelphia, PA 19104
(215) 596-6336

Region IV

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
1371 Peachtree Street, NE
Atlanta, GA 30367
(404) 881-4411

Region V

Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
230 S. Dearborn Street
Chicago, IL 60604
(312) 353-0313

Region VI

Arkansas, Louisiana, New Mexico, Oklahoma, Texas
555 Griffin Square Building
Griffin and Young Streets
Dallas, TX 75202
(214) 767-6877

Region VII

Iowa, Kansas, Missouri, Nebraska
911 Walnut Street
Kansas City, MO 64106
(816) 374-3796

Region VIII

Colorado, Montana, N. Dakota, S. Dakota, Utah, Wyoming
Federal Building
1961 Stout Street
Denver, CO 80294
(303) 844-4477

Region IX

Arizona, California, Hawaii, Nevada, Trust Terr. of Pacific Islands, Guam, America Samoa
450 Golden Gate Avenue
San Francisco, CA 94102
(415) 556-7414

Region X

Alaska, Idaho, Oregon, Washington
Federal Office Building
909 First Avenue
Seattle, WA 98174
(206) 442-7700

U.S. Department of Labor
Bureau of Labor Statistics
Regional Offices

Region I

JFK Federal Building
Government Center
Boston, MA 02203
(617) 223-6727

Region II

Suite 3400
1515 Broadway
New York, NY 10036
(212) 944-3117

Region III

3535 Market Street, Room 15340
Philadelphia, PA 19101
(215) 596-1151

Region IV

1371 Peachtree Street, NE
Atlanta, GA 30367
(404) 881-2161

Region V

230 S. Dearborn Street
Chicago, IL 60604
(312) 353-7226

Region VI

Second Floor
555 Griffin Square Building
Griffin and Young Streets
Dallas, TX 75202
(214) 767-6953

Regions VII and VIII*

911 Walnut Street
Kansas City, MO 64106
(816) 374-2378

Region IX

450 Golden Gate Avenue
San Francisco, CA 94102
(415) 556-3178

Region X

Federal Office Building
909 First Avenue
Seattle, WA 98174
(206) 442-4591

*Regions VII and VIII are serviced by Kansas City.

State Employment Security Agencies

State employment security agencies develop occupational projections and related employment statistics in cooperation with the Bureau of Labor Statistics of the U.S. Department of Labor. The following list gives the addresses of employment security agency research directors.

Alabama

Chief, Research and Statistics
Department of Industrial Relations
Industrial Relations Building, Room 427
Montgomery, AL 36130

Alaska

Chief, Research and Analysis
Administrative Services Division
Alaska Department of Labor
P.O. Box 1149
Juneau, AK 99802

Arizona

Research Administrator, Labor Market Information, Research and Analysis
Department of Economic Security
P.O. Box 6123
Phoenix, AZ 85005

Arkansas

Chief, Research and Analysis
Employment Security Division
Arkansas Department of Labor
P.O. Box 2981
Little Rock, AR 72203

California

Chief, Employment Data and Research
Employment Development Department
P.O. Box 1679
Sacramento, CA 95808

Colorado

Chief, Research and Development
Colorado Division of Employment and Training
1330 Fox Street
Denver, CO 80204

Connecticut

Director, Research and Information
Employment Security Division
Connecticut Labor Department
200 Folly Brook Boulevard
Wethersfield, CT 06109

Delaware

Chief, Office of Occupational and Labor Market Information
Delaware Department of Labor
Building D
University Plaza
Chapman Road, Route 273
Newark, DE 19714-9029

District of Columbia

Chief, Division of Labor Marketing Information Research and Analysis
DC Department of Employment Service
500 C Street, NW, Room 411
Washington, DC 20001

Florida

Chief, Bureau of Research and Information
Florida Department of Labor and Employment Security
Capitol Hill South, Room 1
1720 South Gadsden Street
Tallahassee, FL 32301

Georgia

Director, Labor Information Systems
Department of Labor
254 Washington Street, SW
Atlanta, GA 30334

Hawaii

Chief, Research and Statistics
Department of Labor and Industrial Relations, Room 304
P.O. Box 3680
Honolulu, HI 96813

Idaho

Chief, Research and Analysis
Department of Employment
P.O. Box 35
Boise, ID 83735

Illinois

Director, Research and Analysis
Illinois Bureau of Employment Security
910 S. Michigan Avenue, 12th Floor
Chicago, IL 60605

Indiana

Chief, Research and Statistics
Indiana Employment Security Division
10 North Senate Avenue
Indianapolis, IN 46204

Iowa

Manager, Research and Statistics
Iowa Department of Job Service
1000 E. Grand Avenue
Des Moines, IA 50319

Kansas

Chief, Research and Analysis
Department of Human Resources
401 Topeka Avenue
Topeka, KS 66603

Kentucky

Manager, Labor Market Research and Analysis
Department for Employment Services
Cabinet for Human Resources
275 E. Main Street
Frankfort, KY 40621

Louisiana

Director, Research and Statistics
Department of Labor
P.O. Box 44094—Capitol Station
Baton Rouge, LA 70804

Maine

Director, Research and Analysis
Bureau of Employment Security
Maine Department of Labor
20 Union Street
Augusta, ME 04330

Maryland

Director, Research and Analysis
Department of Human Resources
1100 North Eutaw Street
Baltimore, MD 21201

Massachusetts

Director, Job Market Research and Policy
Division of Employment Security
Charles F. Hurley Building—Government Center
Boston, MA 02114

Michigan

Director, Research and Statistics
Employment Security Commission
7310 Woodward Avenue
Detroit, MI 48202

Minnesota

Director, Research and Statistical Services
Department of Economic Security
390 North Robert Street, Room 517
St. Paul, MN 55101

Mississippi

Chief, Labor Market Information
Employment Security Commission
P.O. Box 1699
Jackson, MS 39205

Missouri

Chief, Research and Analysis
Division of Employment Security
P.O. Box 59
Jefferson City, MO 65101

Montana

Chief, Research and Analysis
Department of Labor and Industry
P.O. Box 1728
Helena, MT 59601

Nebraska

Chief, Research and Statistics
Division of Employment
Nebraska Department of Labor
P.O. Box 94600
Lincoln, NE 68509

Nevada

Chief, Employment Security Research
Employment Security Department
500 E. Third Street
Carson City, NV 89713

New Hampshire

Director, Economic Analysis and Reports
Department of Employment Security
32 South Main Street
Concord, NH 03301

New Jersey

Director, Planning and Research
Department of Labor
P.O. Box 2765
Trenton, NJ 08625

New Mexico

Chief, Research and Statistics
Employment Services Division
Employment Security Department
P.O. Box 1928
Albuquerque, NM 87103

New York

Director, Research and Statistics
Department of Labor
State Campus, Building 12
Albany, NY 12240

North Carolina

Director, Labor Market Information
Employment Security Commission
P.O. Box 25903
Raleigh, NC 27611

North Dakota

Chief, Research and Statistics
Job Service North Dakota
P.O. Box 1537
Bismarck, ND 58505

Ohio

Director, Labor Market Information
Ohio Bureau of Employment Services
145 South Front Street
Columbus, OH 43216

Oklahoma

Chief, Research and Planning
310 Will Rogers Memorial Office Building
Oklahoma City, OK 73105

Oregon

Assistant Administrator, Research and Statistics
Oregon Employment Division
875 Union Street, NE
Salem, OR 97311

Pennsylvania

Director, Research and Statistics
Department of Labor and Industry
7th and Forster Streets
Harrisburg, PA 17121

Puerto Rico

Chief, Labor and Human Resources
Bureau of Employment Security
505 Munoz Rivera Avenue, 15th Floor
Hato Rey, PR 00918

Rhode Island

Supervisor, Employment Security Research
Department of Employment Security
24 Mason Street
Providence, RI 02903

South Carolina

Director, Manpower Research and Analysis
Employment Security Commission
P.O. Box 995
Columbia, SC 29202

South Dakota

Chief, Research and Statistics
Office of Administrative Services
Department of Labor
P.O. Box 1730
Aberdeen, SD 57401

Tennessee

Chief, Research and Statistics
Department of Employment Security
Cordell Hull Office Building, Room 519
436 6th Avenue, North
Nashville, TN 37219

Texas

Chief, Economic Research and Analysis
Texas Employment Commission
15th and Congress Avenues
Austin, TX 78778

Utah

Chief, Research and Analysis
Department of Employment Security
P.O. Box 11249
Salt Lake City, UT 84147

Vermont

Chief, Research and Statistics
Vermont Department of Employment and Training
P.O. Box 488
Montpelier, VT 05602

Virgin Islands

Director, Bureau of Labor Statistics
VI Department of Labor
P.O. Box 818
St. Thomas, VI 00801

Virginia

Director, Research and Analysis
Virginia Employment Commission
P.O. Box 1358
Richmond, VA 23211

Washington

Chief, Research and Statistics
Employment Security Department
212 Maple Park
Olympia, WA 98504

West Virginia

Chief, Labor and Economic Research
Department of Employment Security
112 California Avenue
Charleston, WV 25305

Wisconsin

Chief, Labor Market Information
Department of Industry, Labor and Human Relations
P.O. Box 7944
Madison, WI 53707

Wyoming

Chief, Research and Analysis
Employment Security Commission
P.O. Box 2760
Casper, WY 82602

State Occupational Information Coordinating Committees

State Occupational Information Coordinating Committees (SOICCs) were mandated by the 1976 Education Act Amendments to establish a communications network through which occupational and training information would be developed, tested, and shared across the country. The mission of SOICCs is to oversee the organization of occupational information into a comprehensive occupational information system and to encourage the use of the system by counselors, education and training planners, job placement specialists, and individuals seeking career information. Addresses of these state committees are listed below.

Alabama

Alabama Occupational Information Coordinating Committee
Bell Building, Suite 400
207 Montgomery Street
Montgomery, AL 36130

Alaska

Alaska Department of Labor
Research and Analysis Section
Post Office Box 149
Juneau, AK 99802

American Samoa

American Samoa State Occupational Information Coordinating Committee
Office of Manpower Resources
American Samoa Government
Pago Pago, American Samoa 96799

Arizona

Arizona State Occupational Information Coordinating Committee
Post Office Box 6123, Site Code 897J
Phoenix, AZ 85005

Arkansas

Arkansas Occupational Information
Coordinating Committee
Research and Analysis Section
Arkansas Employment Security Division
Post Office Box 2981
Little Rock, AK 72203

California

California Occupational Information
Coordinating Committee
800 Capitol Mall, MIC—67
Sacramento, CA 95814

Colorado

Colorado Occupational Information
Coordinating Committee
218 Centennial Building
1313 Sherman Street
Denver, CO 80203

Connecticut

Connecticut State Occupational Information
Coordinating Committee
c/o Voc Rehab District Office
56 Arbor Street, 2nd Floor
Hartford, CT 06106

Delaware

Office of Occupational and Labor Market
Information
Delaware Department of Labor
University Office Plaza
Post Office Box 9029
Newark, Delaware 19711

District of Columbia

District of Columbia Occupational
Information Coordinating Committee
500 C Street NW, Room 207
Washington, DC 20001

Florida

Florida Job Training Coordinating Council
and SOICC Director
204 Atkins Building
1320 Executive Center Drive
Tallahassee, FL 32301

Georgia

Georgia Occupational Information
Coordinating Committee
501 Pulliam Street SW, Suite 211
Atlanta, GA 30312

Guam

Guam Occupational Information Coordinating
Committee
Human Resource Development Agency
Jay Ease Building, 3rd Floor
Post Office Box 2817
Agana, Guam 96910

Hawaii

Hawaii State Occupational Information
Coordinating Committee
830 Punchbowl Street, Room 315
Honolulu, HI 96813

Idaho

Idaho Occupational Information Coordinating
Committee
Len B. Jordan Building-Room 301
650 W. State Street
Boise, ID 83720

Illinois

Illinois Occupational Information
Coordinating Committee
217 East Monroe, Suite 203
Springfield, IL 62706

Indiana

Indiana Occupational Information
Coordinating Committee
Indiana Employment Security Building
10 North Senate Avenue, Room 313
Indianapolis, IN 46204

Iowa

Iowa Occupational Information Coordinating
Committee
523 East 12th Street
Des Moines, IA 50319

Kansas

Kansas Occupational Information
Coordinating Committee
401 Topeka Avenue
Topeka, KS 66603

Kentucky

Kentucky Occupational Information
Manager/KOICC Coordinator
275 E. Main Street - 2 East
Frankfort, KY 40621

Louisiana

Louisiana Occupational Information
Coordinating Committee
P.O. Box 94094
Baton Rouge, LA 70804-9094

Maine

Maine Occupational Information Coordinating
Committee
State House Station 71
Augusta, ME 04333

Maryland

Maryland Occupational Information
Coordinating Committee
Governor's Employment & Training Council
1100 N. Eutaw St. - Suite 720
Baltimore, MD 21201

Massachusetts

Massachusetts Occupational Information
Coordinating Committee
Massachusetts Division of Employment
Security
C.F. Hurley Building, 2nd Floor
Government Center
Boston, MA 02114

Michigan

Michigan Occupational Information
Coordinating Committee
309 N. Washington
P.O. Box 30015
Lansing, MI 48909

Minnesota

Minnesota Occupational Information
Coordinating Committee
Minnesota - Department of Economic Security
690 American Center Building
150 East Kellogg Boulevard
St. Paul, MN 55101

Mississippi

Mississippi Occupational Information
Coordinating Committee
1101 Sillers Building
Post Office Box 771
Jackson, MS 39205

Missouri

Missouri Occupational Information
Coordinating Committee
421 East Dunklin Street
Jefferson City, MO 65101

Montana

Montana Occupational Information
Coordinating Committee
Post Office Box 1728
Helena, MT 59624

Nebraska

Nebraska Occupational Information
Coordinating Committee
Post Office Box 94600
State House Station
Lincoln, NE 68509-0560

Nevada

Nevada Occupational Information
Coordinating Committee
601 Kinkead Building
505 East King Street
Carson City, NV 89710

New Hampshire

New Hampshire Job Training Council
155 Manchester Street
Concord, NH 03301

New Jersey

New Jersey Occupational Information
Coordinating Committee
Labor and Industry Building
CN 056
Trenton, NJ 08625-0056

New Mexico

New Mexico Occupational Information
Coordinating Committee
Tiwa Building
401 Broadway, N.E.
Post Office Box 1928
Albuquerque, NM 87103

New York

New York Occupational Information
Coordinating Committee
New York Department of Labor
Building 12 State Office Building Campus
Albany, NY 12240

North Carolina

North Carolina Occupational Information
Coordinating Committee
1311 St. Mary's Street, Suite 250
Post Office Box 27625
Raleigh, NC 27611

North Dakota

North Dakota Occupational Information
Coordinating Committee
1000 East Divide
Post Office Box 1537
Bismarck, ND 58502

Northern Mariana Islands

Northern Mariana Islands Occupational
Information Coordinating Committee
Post Office Box 149
Saipan, CM 96950

Ohio

Ohio Occupational Information Coordinating
Committee
Division of Labor Market Information
Ohio Bureau of Employment Services
1160 Dublin Road, Building A
Columbus, OH 43215

Oklahoma

Oklahoma Occupational Information
Coordinating Committee
Oklahoma Employment Security Commission
309 Will Rogers Memorial Office Building
Oklahoma City, OK 73105

Oregon

Oregon Occupational Information
Coordinating Committee
875 Union Street NE
Salem, OR 97311

Pennsylvania

Pennsylania Occupational Information
Coordinating Committee
Governor's Office of Policy Development
506 Finance Building
Post Office Box 1323
Harrisburg, PA 17105

Puerto Rico

Puerto Rico Occupational Information
Coordinating Committee
Prudencio Rivera Martinez Building
19th Floor, 505 Munoz Rivera Avenue
Hato Rey, PR 00918

Rhode Island

Rhode Island Occupational Information
Coordinating Committee
22 Hayes Street, Room 133
Providence, RI 02908

South Carolina

South Carolina Occupational Information
Coordinating Committee
1550 Gadsden Street
Post Office Box 995
Columbia, SC 29202

South Dakota

South Dakota Occupational Information
Coordinating Committee
South Dakota Department of Labor
607 North 4th Street
Box 1730
Aberdeen, SD 57401

Tennessee

Tennessee Occupational Information
Coordinating Committee
512 Cordell Hull Building
Nashville, TN 37219

Texas

Texas Occupational Information Coordinating
Committee
TEC Building
15th and Congress, Room 526T
Austin, TX 78778

Trust Territory

Trust Territory of the Pacific Islands
Occupational Information Coordinating
Committee
Office of Special Assistant/High
Commissioner
Capitol Hill
Trust Territory of the Pacific Islands
Saipan, CM 96950

Utah

Utah Occupational Information Coordinating
Committee
140 Social Hall Avenue
Salt Lake City, UT 84111

Vermont

Vermont Occupational Information
Coordinating Committee
Department of Employment and Training
5 Green Mountain Drive
Post Office Box 488
Montpelier, VT 05602

Virginia

Virginia Occupational Information
Coordinating Committee
Virginia Employment Commission
Post Office Box 1358
703 East Main Street
Richmond, VA 23211

Virgin Islands

State Occupational Information Coordinating
Committee
Post Office Box 3359
St. Thomas, U.S. Virgin Islands 00801

Washington

Washington Occupational Information
Coordinating Committee
212 Maple Park, MS KG-11
Olympia, WA 98504-5311

West Virginia

West Virginia Occupational Information
Coordinating Committee
1600 1/2 Washington Street, East
Charleston, WV 25311

Wisconsin

Wisconsin Occupational Information
Coordinating Committee
Governor's Employment and Training Office
Post Office Box 7972
Madison, WI 53707

Wyoming

Wyoming Occupational Information
Coordinating Committee
Occupational Information Program
Herschler Building, 2nd Floor East
Cheyenne, WY 82002

National Crosswalk Service Center

National Crosswalk Service Center
523 E. 12th Street
Des Moines, IA 50319

Educational Laboratories and Centers

The following list of educational "labs and centers" has been compiled by the Council for Educational Development and Research (CEDaR):

Appalachia Educational Laboratory
Post Office Box 1348
Charleston, WV 25325

Far West Laboratory for Educational Research and Development
1855 Folsom Street
San Francisco, CA 94103

Center for Social Organization of Schools
Johns Hopkins University
3505 North Charles Street
Baltimore, MD 21218

Mid-Continent Regional Educational Laboratory
4709 Belleview Avenue
Kansas City, MO 64112

The Network, Inc.
290 South Main Street
Andover, MA 01810

Northwest Regional Educational Laboratory
300 SW Sixth Avenue
Portland, OR 97204

National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, OH 43210

Center for Educational Policy and Management
College of Education
University of Oregon
Eugene, OR 97403

Learning Research and Development Center
University of Pittsburgh
3939 O'Hara Street
Pittsburgh, PA 15260

North Central Regional Educational Laboratory
295 Emroy Avenue
Elmhurst, IL 60126

Research for Better Schools
444 North Third Street
Philadelphia, PA 19123

Southwest Educational Development Laboratory
211 East Seventh Street
Austin, TX 78701

Institute for Research on Educational Finance and Governance
CERAS Building
School of Education
Stanford University
Stanford, CA 94305

SWRL Educational Research and Development
4665 Lampson Avenue
Los Alamitos, CA 90720

Research and Development Center for Teacher Education
Education Annex 3.203
The University of Texas at Austin
Austin, TX 78712

Center for the Study of Evaluation
UCLA Graduate School of Education
145 Moore Hall
Los Angeles, CA 90024

Wisconsin Center for Education Research
University of Wisconsin
1025 West Johnston Street
Madison, WI 53706

Educational Technology Center (Harvard ETC)
337 Gutman Library
6 Appian Way
Cambridge, MA 02138

ERIC Clearinghouses Relevant to Labor Market Information and Counseling

ERIC stands for the Educational Resources Information Center, an information system in existence since 1966 and currently sponsored by the National Institute of Education, within the U.S. Department of Education.

ERIC is designed to provide users with ready access to the literature dealing with education. It does this through a variety of products and services (e.g., data bases, computer searches, online access, document reproductions, etc.).

Organizationally ERIC consists of a central government office; 16 subject-specialized clearinghouses (collecting and analyzing the literature and producing information products); a central editorial and computer facility (maintaining the data base and preparing the abstract journal); a central ERIC Document Reproduction Service (preparing microfiche and document reproductions); and a commercial publisher (publishing the ERIC Thesaurus and other ERIC publications).

The two specific ERIC clearinghouses that are most relevant to career and labor market information and counseling are as follows:

ERIC/Adult, Career, and Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, OH 43210

ERIC/Counseling and Personnel Services
University of Michigan
2108 School of Education Building
Ann Arbor, MI 48109

APPENDIX G

GLOSSARY OF TERMS

Glossary of Terms

Career Guidance Terms

The following career guidance terms are from an article by Susan Sears, "A Definition of Career Guidance Terms: A National Vocational Guidance Association Perspective," which appeared in *The Vocational Guidance Quarterly* (vol. 31, no. 2, December 1982, pp. 139-142). See the article for additional terms.

Career: The totality of work one does in his/her lifetime.

Career Counseling: A one-to-one or small group relationship between a client and a counselor with the goal of helping the client(s) integrate and apply an understanding of self and the environment to make the most appropriate career decisions and adjustments.

Career Development: The total constellation of psychological, sociological, educational, physical, economic, and chance factors that combine to shape the career of any given individual over the life span.

Career Development Theories: Theoretical bases for understanding how individuals develop vocationally. These bases provide guidance specialists with the guidelines necessary for helping them solve problems, avoid blocks, and progress with efficiency and satisfaction.

Career Guidance: Those activities and programs that assist individuals to assimilate and integrate knowledge, experience, and appreciations related to:

- Self-understanding, which includes a person's relationship to his/her own characteristics and perceptions, and his/her relationship to others and the environment.
- Understanding of the work of society and those factors that affect its constant change, including worker attitudes and discipline.
- Awareness of the part leisure time may play in a person's life.
- Understanding of the necessity for and the multitude of factors to be considered in career planning.
- Understanding of the information and skills necessary to achieve self-fulfillment in work and leisure.
- Learning and applying the career decision-making process.

Career Information: Information related to the world of work that can be useful in the process of career development, including educational, occupational, and psychosocial information related to working, e.g., availability of training, the nature of the work, and status of workers in different occupations.

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Career Patterns: Those career behaviors that may be recognized as regular and predictable after study and examination of the individual. These behaviors are the result of psychological, physical, situational, and societal factors that influence an individual's life.

Computerized Guidance: The process by which a client becomes familiar with occupational and educational information through the expanded delivery system of a computer.

Decision-Making: A process that is designed to assist persons in making personally satisfying decisions and that includes these components: (1) exploration and clarification of personal values, (2) use of the data about self and the environment, and (3) study of the decision process and strategies. The process includes these steps: (1) recognize the need for a decision, (2) explore alternative choices, (3) predict the probable outcomes of each choice, (4) assign personal values to each choice, (5) determine the cost of each choice, (6) make a decision, (7) implement the decision, and (8) evaluate the outcomes of the decision.

Group Career Guidance: The involvement of three or more persons in a counseling relationship that focuses on the sharing and clarification of information that is needed in career planning. It usually involves a larger group than career counseling and the counselor provides considerable direction to the group.

Interest: Indications of what an individual wants to do and/or reflections of what he/she considers satisfying.

Job: A group of similar, paid, positions requiring some similar attributes in a single organization. Jobs are task-, outcome-, and organization-centered.

Job Placement: The process of helping an individual locate a job, apply for it, obtain it, and make satisfactory initial adjustment to it.

Leisure: Relatively self-determined activities and experiences that are available due to having discretionary income, time, and social behavior. This activity may be physical, intellectual, volunteer, creative, or some combination of all four.

Occupation: A group of similar jobs found in various organizations. Occupations are task-, economy-, and society-oriented.

Occupational Cluster: A classification of occupations into logically related groups on the basis of identical or similar elements. These logically related groups of occupations are termed "clusters."

Occupational Information: Information that is directly concerned with duties, requirements for entrance, conditions of work, rewards, patterns of advancement, and worker supply and demand in various occupations.

Vocation: An occupation with commitment, distinguished primarily by its psychological as contrasted with its economic meaning. Vocations are task-, outcome-, and person-centered.

Vocational Aptitude: Potentiality for achievement in a given type of occupation, usually indicated by performance in a test involving operations judged to be analogous to those basic to achievement in that type of occupation.

Vocational Development: Those processes and factors that aid or impede young people's acquisition of the values, knowledge, and skills that lead to effective vocational behavior.

Vocational Development Tasks: Expectations of behaviors, related directly or indirectly to the world of work, which society expects its members to manifest at certain periods in their lives.

Vocational Guidance: The process of helping a person to develop and accept an integrated and adequate picture of him/herself and of his/her role in the world of work, to test this concept against reality, and to convert it into a reality, with satisfaction to him/herself and benefit to society (Super, 1951). This resulting current view of vocational guidance is self-concept oriented and focuses primarily on self-understanding and self-acceptance, to which can be related the occupational and educational alternatives available to the individual.

Vocational Maturity: The maturity of an individual's vocational behavior as indicated by the similarity between his/her behavior and that of the oldest individuals in his/her vocational life stage.

Vocational Rehabilitation: The restoring or re-educating of individuals to productive work lives.

Work: Conscious effort, other than that having as its primary purpose either coping or relaxation, aimed at producing benefits for oneself and/or for oneself and others.

Labor Market Terms

The sources of this list are the North Texas State University ICDM Inservice Workbook (1983), Harold Goldstein, consulting economist, and the National Occupational Information Coordinating Committee.

Cyclical Unemployment: Unemployment that arises from changes in the general level of business activity.

Demographic: Number and characteristics of individuals in the population or the labor force.

Dislocated or Displaced Workers: Workers who are laid off or dismissed due to structural changes in their industry or occupation, such as plant closings or relocation, increased competition, automation, or market changes.

Employed Persons: All those people in the civilian population who, in a particular week, did any work at all as paid employees, or as self-employed, or who worked at least 15 hours during the week as unpaid workers in a family business. Also includes those not working but only temporarily absent from usual jobs, due to illness, vacation, or strike.

Employers or Firms: Places of work recognized as legal or managerial entities.

Establishment: Economic units that produce goods or services, such as a factory, mine, or store. The establishment is generally in a single physical location and is engaged predominantly in one type of activity. Note that an establishment may or may not be the same as a firm: one firm may be composed of only one establishment, or many establishments.

Frictional Unemployment: The temporary joblessness of those who have begun to look for work but are not yet employed.

Geographic Labor Market: The geographic areas in which workers can generally change jobs without changing residence, practically defined as metropolitan areas, MSAs, cities, counties, etc.

Industry: Industry categories classify work by the type of goods or services produced (e.g., accounting services or automobiles).

Industry-Occupation (I-O) Matrix: A tabulation of employment data cross-classified by industry and occupation, arranged in a grid divided into rows and columns. It provides a model representing the occupational employment staffing patterns of each industry for one point in time.

Internal Labor Market: A labor market within an individual organization or firm in which workers are hired from outside only in designated entry jobs and all other jobs are filled by promotion or transfer within the organization. In such labor markets, wages are set and workers are allocated to jobs by institutional rules more than by supply and demand forces.

Job: A position of employment; or, a group of similar, paid positions requiring some similar attributes in a single organization.

Labor Market: The marketplace through which the price and allocation of labor is established.

Labor Market Information (LMI): Labor Market Information, although not having a commonly agreed upon definition, is considered to be that body of knowledge that describes and interprets the demographic and socio-economic activities related to labor market functions.

Metropolitan Statistical Areas (MSAs): Except for New England, a MSA is defined on a county basis. Each MSA must include at least (1) one city with 50,000 or more inhabitants; or (2) a city with at least 25,000 inhabitants that, together with those contiguous places with population densities of at least 1,000 per square mile, has a combined population of 50,000.

Occupational Demand: The number of jobs filled in a specific occupation plus the number of job vacancies that exist in that occupation.

Occupational Information: Descriptive and quantitative information on the characteristics of occupations and jobs, such as demand and supply, the nature of the occupation, working conditions, personal requirements, licensing, certification and registration requirements, methods of entry and advancement, earnings, and employment profile.

Occupational Supply: The number of workers in a specific labor market employed in a specific occupation, plus the number of unemployed persons qualified for and seeking work in that occupation, plus the number currently employed in other occupations who might seek work in this occupation under current or prospective labor market conditions.

Structural Unemployment: Joblessness that results from a mismatch between the skills or locations of the unemployed and those of the jobs for which employers are seeking workers. It may result from changes in the kinds of workers needed by the economy, skill obsolescence, geographic shifts of industries, or lack of training for the kinds of skills local employers require.

Underemployed Persons: All those people who are working in jobs below their skill level or experience or are working part-time while desiring full-time employment.

Unemployed Persons: All those persons in the civilian population who, in any particular week, were not working but were actively looking and available for work.

Unemployment Rate: The proportion of the labor force or of the civilian labor force that is unemployed. It is used as one indicator of the health of an area's labor market economy.

$$\text{Unemployment rate} = \frac{\text{unemployment}}{\text{labor force}}$$

Beginning in January 1983, the rate is calculated on the total labor force, including the armed services.

APPENDIX H

ACRONYMS

ACRONYMS

AACD	American Association for Counseling and Development
AFL-CIO	American Federation of Labor-Congress of Industrial Organizations
ASVAB	Armed Services Vocational Aptitude Battery
AVA	American Vocational Association
BAT	Bureau of Apprenticeship and Training
BLS	U.S. Bureau of Labor Statistics
CBP	County Business Patterns
CDI	Career Development Inventory
CIDS	Career Information Delivery System
CIP	Classification of Instructional Programs
CMI	Career Maturity Inventory
CPS	Current Population Survey
CRC	Career Resource Center
DOD	U.S. Department of Defense
DOL	U.S. Department of Labor
DOT	Dictionary of Occupational Titles
EEO	Equal Employment Opportunity
EEOC	Equal Employment Opportunity Commission
ERIC	Educational Resources Information Center
ETA	Employment and Training Administration
GATB	General Aptitude Test Battery
GED	General Education Development
GOE	Guide for Occupational Exploration
ICDM	Improved Career Decision Making
I-O	Industry-Occupation (matrix)
LMI	Labor Market Information
MOS	Military Occupational Specialties
NCDA	National Career Development Association (formerly National Vocational Guidance Association)

NCES	National Center for Educational Statistics
NCRVE	National Center for Research in Vocational Education
NOICC	National Occupational Information Coordinating Committee
NVGA	National Vocational Guidance Association (now National Career Development Association)
OES	Occupational Employment Statistics
OIS	Occupational Information System
OJT	On-the-Job-Training
OOH	Occupational Outlook Handbook
OOQ	Occupational Outlook Quarterly
OVIS	Ohio Vocational Interest Survey
SDS	Self-Directed Search
SESA	State Employment Security Agency
SIC	Standard Industrial Classification
SMSA	Standard Metropolitan Statistical Area
SOC	Standard Occupational Classification
SOICC	State Occupational Information Coordinating Committee(s)
SSDI	Social Security Disability Income
SVP	Specific Vocational Preparation
UI	Unemployment Insurance
USES	U.S. Employment Service
VEDS	Vocational Education Data Systems
VIEW	Vital Information on Education and Work
VPO	Vocational Preparation and Occupations

APPENDIX I

ADDITIONAL RESOURCES

Additional Resources

Here are a number of other resources with which you should be familiar.

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